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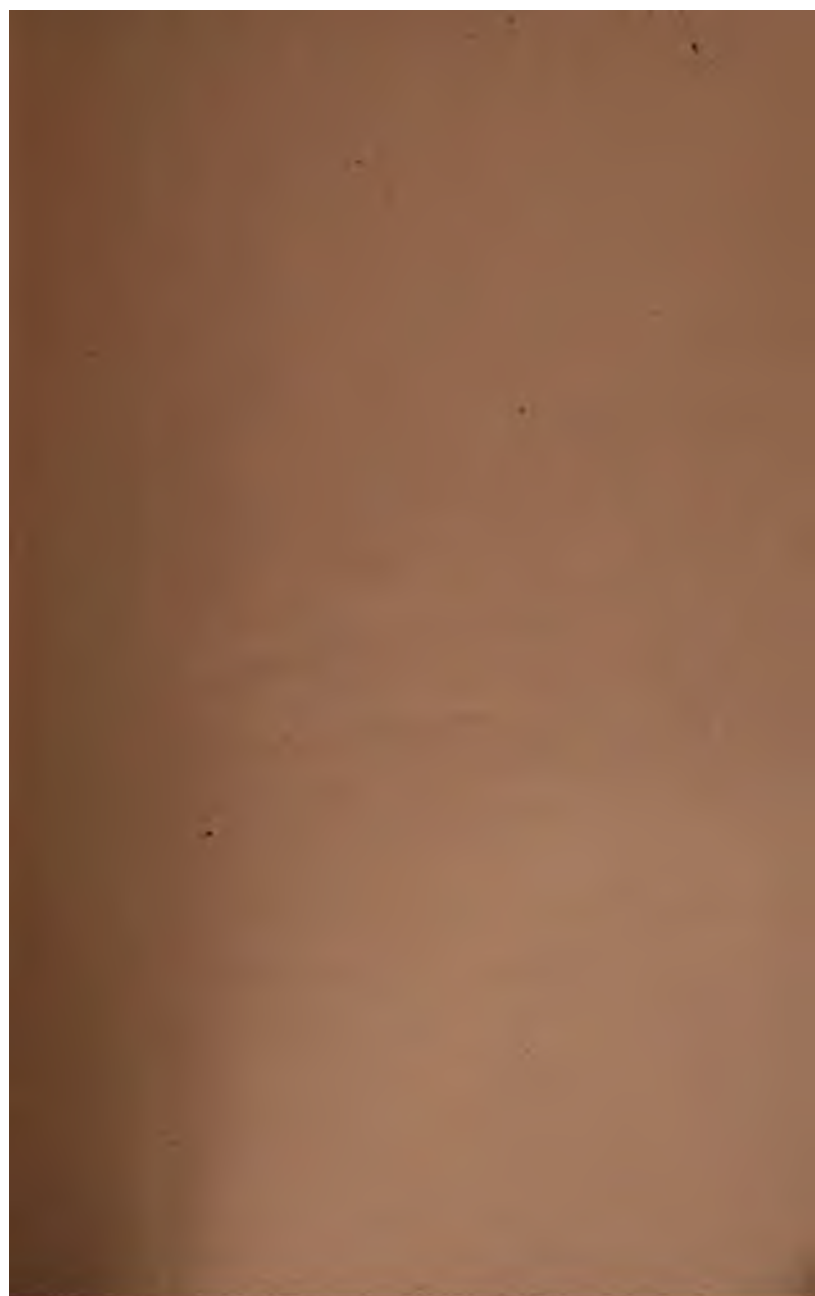
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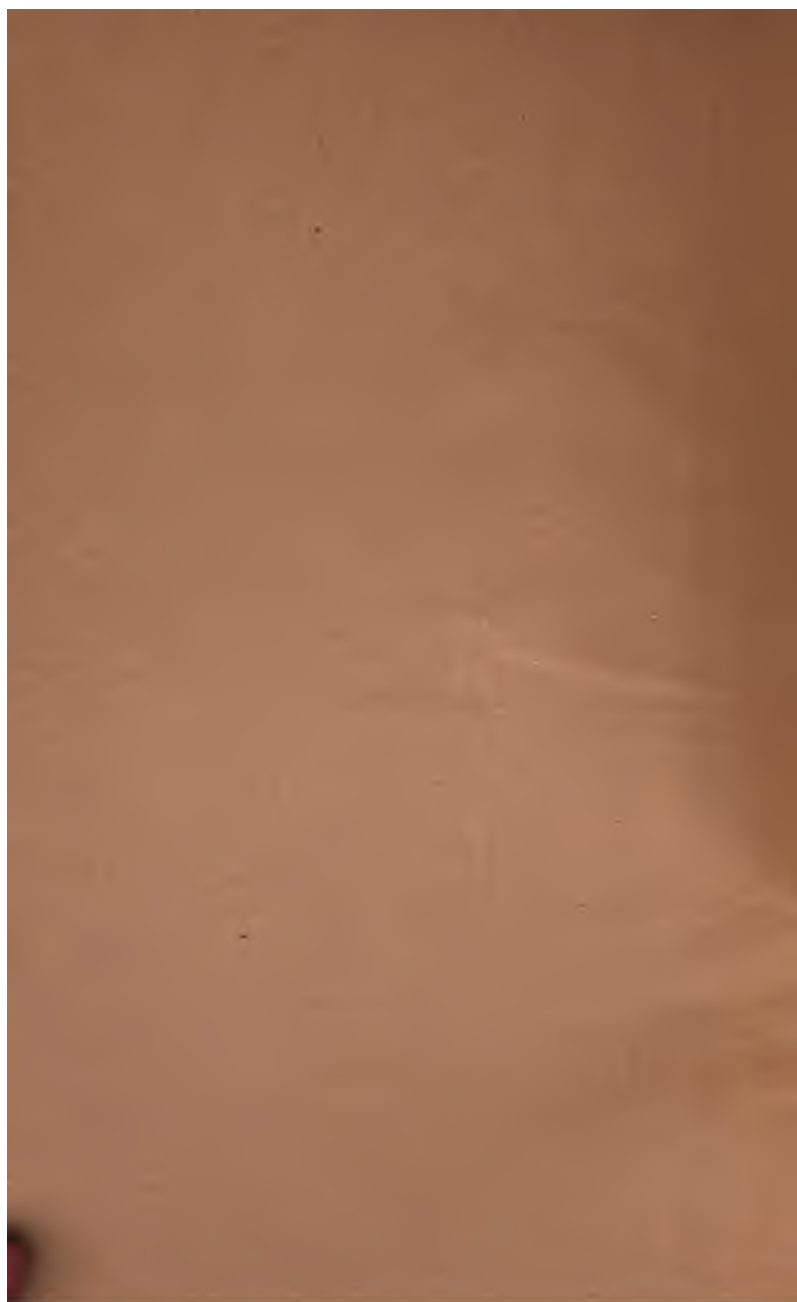


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HYGIENIC  
AND  
SANATIVE MEASURES  
FOR  
**CHRONIC CATARRHAL INFLAMMATION**  
OF THE  
Nose, Throat and Ears.

*WITH SEVEN ILLUSTRATIONS.*

Third Edition.

BY

THOS. F. RUMBOLD, M. D.,

Fellow of the American Rhinological Association; Member of the St. Louis  
Medical Society; Permanent Member of the American Medical Association,  
and of the Missouri State Medical Association, etc.

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## ILLUSTRATIONS.

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## PREFACE TO THIRD EDITION.

When I prepared the former editions of this little book, I intended them for the medical profession exclusively; but many of my medical friends, as well as quite a number of my reviewers, have suggested that it might, with great propriety and some benefit, be given to persons suffering from chronic catarrhal inflammation of the Nose, Throat and Ears. I have, therefore, in the past, given a few of my patients a copy of the book as an instructor in the laws of hygiene. These patients, without exception, have expressed appreciation of the instructions contained therein, and I am certain that much of the success in my practice has been due to the fact that they read the book heedfully. Such patients make better and quicker recoveries, and are far more reasonable in their expectations concerning a rapid recovery, and take better care of themselves after recovery.

It is seen that I have made a radical change as respects the class that I expect shall hereafter read these pages. Although in making this change, I have not changed its language, as I desire the reader to become acquainted with the medical phraseology employed by physicians. The patients can then talk more intelligibly with their medical advisers, and answer questions concerning their symptoms more intelligently, as well as describe the location of their



complaint more accurately, a matter of no little importance. I have, however, to aid the non-medical reader, added a short Glossary.

This edition has been carefully revised and enlarged. Six new chapters have been added, namely :  
THE EFFECTS OF EXCESSES.

THE EFFECTS OF THE USE OF PATENT MEDICINES.

SPECIAL HYGIENE FOR SINGERS AND SPEAKERS.

LOCAL SYMPTOMS OF PRURITIC RHINITIS (*Hay-Fever*).

SPECIAL HYGIENE FOR ASTHMA AND PRURITIC RHINITIS (*Hay-Fever*).

THE CURABILITY OF CHRONIC NASAL CATARRH.

I have omitted the chapters on *Cleansing the Nasal Passages and Ears*, as these subjects belong exclusively to the physician; and also that part of the chapter on *Removal of Hardened Secretion from the Nasal Passages*, which was written for physicians. Patients could not properly use the instruments recommended in these three chapters without special instructions from their medical advisers. I have, however, retained the portion of the last chapter named, that treats of the use of the *nasal douche*. I have done so solely for the purpose of cautioning patients regarding the injurious effects arising from its use.

Chronic nasal catarrh is a disease that requires the utmost skill and attention of an educated physician to effect a recovery, consequently, a patient can not acquire the skill to treat himself successfully, by

merely reading the instructions from a book. For this reason all treatment suggested in former editions is omitted. While holding that no patient can apply medicaments to his own air passages properly, or effectively, at the same time I think with Drs. Wyman and Beard—both distinguished authors on the complaint known as Autumnal Catarrh, or Hay-Fever (Pruritic Rhinitis)—that patients should know more of their own symptoms, and should be instructed how to prevent the renewal of their diseases.

Chronic nasal catarrh and its sequences are so very common, or, I might very properly say, almost universal, in this country as well as in Europe, that I am astonished that so little is known, by the sufferers, concerning the causes of the disease; but these facts prove the necessity for more general information than now exists. I am convinced from large experience, that the more there is known in regard to everything connected with this disease, the better for the patients, as well as for the physicians who are to take care of them, and the less inclined will they be to resort to patent nostrums, such as “inhalers” of any kind, “sure cures”, “snuffs”, “balms”, etc., etc., for the relief of their catarrhal troubles.

St. Louis, Mo. Nov. 1886.

T. F. R.

## PREFACE TO SECOND EDITION.

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There is nothing that pleases an Author so much as a due appreciation of his efforts and a rapid sale of his works. In less than one year the First Edition of this little book was exhausted. The very favorable comments made by my reviewers have been exceedingly gratifying and somewhat unexpected, since I occupy new ground, and advocate theories very diverse from those who have written on the subject.

The present Edition has been entirely rewritten and some new matter on every subject added. Of course, no attempt has been made to exhaust any one subject.

While it is noticeable that the interest taken in this subject is steadily and rapidly increasing, yet in my opinion its importance is still underrated. I am very certain the profession will find that the most successful method of eradicating chronic catarrhal inflammation of the respiratory organs, is through the enforcement of proper hygienic and sanative measures. I believe, also, that many ailments that are now treated as separate diseases, will be found to have originated in chronic inflammation of the nasal passages, and chief among these diseases are affections of the mind, there being few patients severely affected with catarrh whose minds are not, to some degree disturbed.

T. F. R.

St. Louis, July, 1882.

## PREFACE TO FIRST EDITION.

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During the last twenty years, I have made the Hygiene of Catarrh a constant study. I had been but a few years in the practice of this specialty, when I perceived that the successful management of this most common and tenacious complaint depended on the faithful observance of the laws of health. I soon also found that even after patients had recovered as completely as it was possible for them to do, the continued observance of hygienic rules was essential to the maintenance of their health.

It is absurd to expect that a patient can be successfully treated while he continues to violate the laws of health. One might as consistently ask a physician to cure him of a burn, while he continues to expose himself to the fire, as to ask to be relieved of a catarrh while he neglects to employ every precaution to protect himself from its causes. The beneficial effect of the observance of the laws of hygiene is especially noticeable in young catarrhal subjects, a large number of whom would recover without other aid.

For these reasons, I commenced in 1862, to give such rules to my patients, as observation taught me were beneficial, in guiding them through those seasons of the year in which they were most liable to take cold. These I have given in form of chapters.

To these chapters I have added several others on sanitary measures.

I do not claim that what is written here is new, but I do say, that it has not been given with sufficient detail and earnestness by any writer on this subject. Some may think that I have been too prolix on some points, but now that my book is in type, I fear that I have not been as full as the importance of the subjects demand.

T. F. R.

Sept., 1880.

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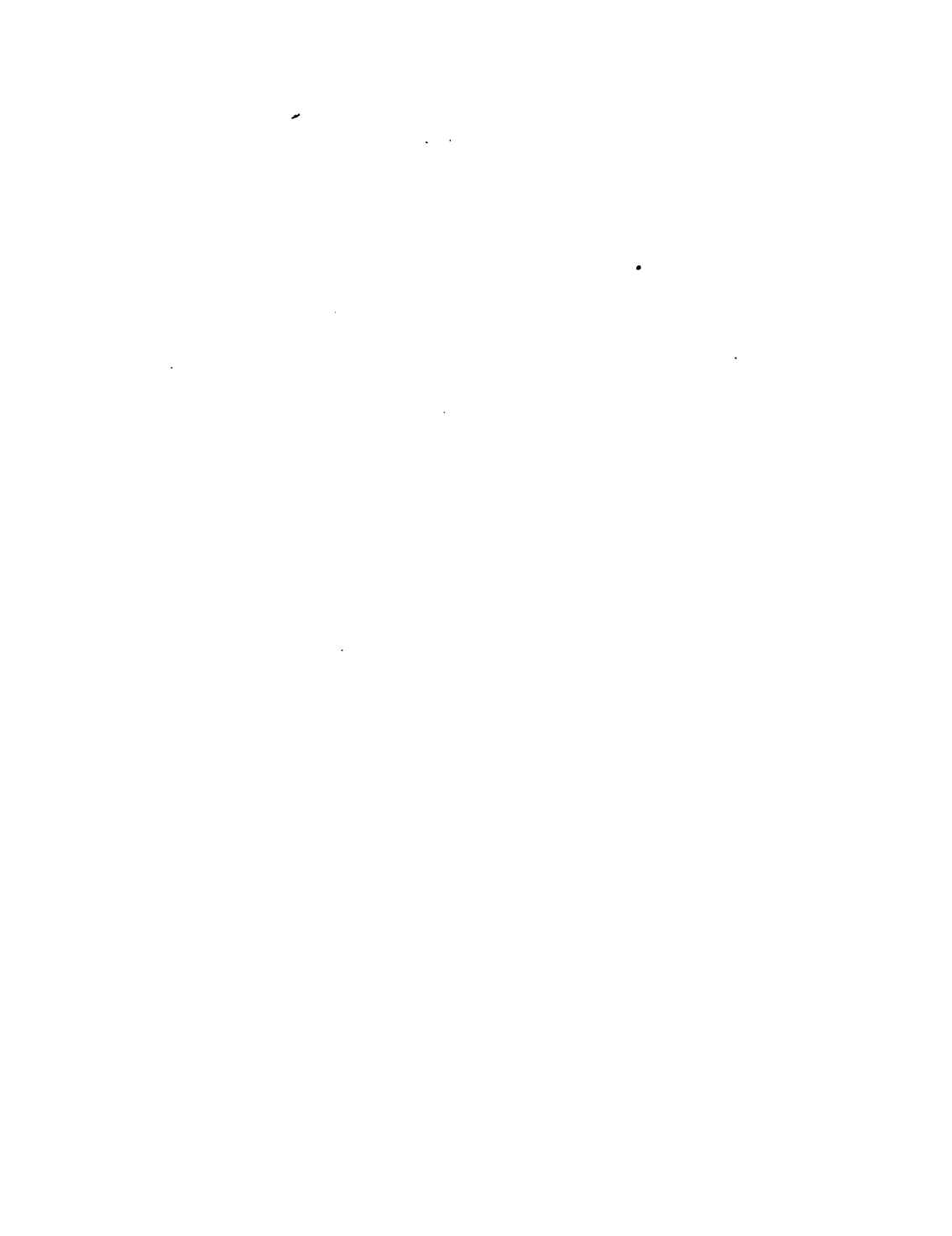
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# HYGIENIC AND SANATIVE MEASURES.

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## CHAPTER I.

### INTRODUCTION

TO HYGIENIC AND SANATIVE MEASURES FOR CHRONIC  
CATARRHAL INFLAMMATION OF THE  
NOSE, THROAT AND EARS.

---

Chronic catarrhal inflammation of the mucous membrane of the nasal passages and the cavities connected with them requires a very different management from that given to other diseases, for the reason that the effects of the dress, customs and daily habits of patients have a controlling influence on both production and prevention of the complaint.

In the early part of 1868, I treated a number of patients for catarrhal inflammation of the throat and nasal passages. They were in the habit of frequenting a skating-rink from two to four nights each week. After exercising violently for a time, being exhausted, they seated themselves on a bench in the cold air, thus becoming chilled. I was but partially success-

ful in their treatment, being unable to do more than alleviate their most prominent symptoms. These circumstances led me to consult a record I had kept of the history and treatment of a few observant patients who had, at different times during the five years previous, been under my care for the same complaint. These last named patients had noted many of their symptoms and had taken special pains to maintain their general health.

I made a record of these cases at different times but had not, until on this occasion, read them through in succession. After a careful reading and comparison one with another, I was struck with the marked similarity of their statements, regarding the causes they ascribed to the aggravation of their catarrhal complaint. The similarity did not end here, but included the care that experience had taught them to take of themselves; the amount as well as the kind of clothing that proved sufficiently protective and the best means they found to relieve a fresh attack of cold in the head and throat.

The reading of this record profoundly impressed me with the paramount importance of the observance of hygienic laws in the management of this disease. The humiliating fact that I had failed, time and again, since 1855, (the date of my first systematic attempt to treat this complaint according to our text books) to do more than give a little relief, proved to me that some very important matter in the management of this disease had been overlooked. Indeed I had made the records spoken of, because of this impression. Under these circumstances, as I reflected on the effects of colds upon the mucous membrane, repeated year after year, and re-called to mind remarks that a large number of other patients had made on this same

subject, I was the more thoroughly convinced that I had found what had been overlooked by all who had preceded me, namely : that a strict observance of the laws of health was indispensable to a successful treatment, as well as to the prevention of the renewal of the cause of the inflammation, namely, colds. It was now not difficult to see why I had failed in the "skating-rink cases."

Since that time I have made it a point to require my patients to strictly observe the laws of hygiene. If they do not do so, I discontinue the treatment at once.

In 1868 I made a series of observations concerning the causes of sickness and death among men and women between the ages of 20 and 40 years. I soon found that most of the ailments and deaths of men arose from the *results of excesses* of various kinds, and the chief of these, was the use of tobacco and stimulants. In the case of the women their sickness and death arose from the *result of exposures* of various kinds, but principally owing to insufficient clothing.

While this is far from being complimentary to man's strength of mind to control his appetites, it is as far from being flattering to woman's judgement of her own endurance or ability to resist the injurious effects of inclement weather. One is an evidence of a determination not to be deprived of any pleasure at whatever cost, and the other denotes either a great state of ignorance or an indifference to a very common cause of disease and death.

Every physician who expects to treat chronic catarrhal disease of the nasal passages successfully, must keep in mind the proneness of male patients to commit excesses and the certainty that almost every female patient is insufficiently and imperfectly clad.

Patients suffering from whatever disease, should so assist their medical adviser, as to insure as speedy and permanent a recovery as possible. But with catarrhal patients this assistance is absolutely indispensable, a recovery, without it, is not possible. A majority of patients appreciate this fact when the subject is fully presented to them, yet not a few of them are ignorant concerning many of the details of the laws of health. For this reason each patient, should, on his first visit, be informed of such hygienic laws and sanative measures as are suited to his particular case.

These instructions should relate to the importance of avoiding any exposure liable to produce a cold; to the best method of protecting the head, neck, body and extremities; to the danger of exposure to draughts and night air; to the proper attention to the temperature and ventilation of the sleeping-room; to the kind of food that should be used; to the importance of physical exercise and what time it may be most judiciously taken; to the injury resulting from not controlling the disposition, if it be irritable; to the danger arising from cold feet, and the way to maintain them warm, if they are habitually cold; to the necessity of maintaining the nasal and aural passages in a clean condition, if the catarrhal secretion is profuse, and the most effective means to be employed for the purpose; to the kind of bath that may be used and the manner and time in which to use it; to the necessity of abstaining

from the use of tobacco; to the importance of having diseased gums and decayed teeth properly treated by a dentist; to the course to pursue when a cold has been contracted, and to any other hygienic or sanative measures tending to regain and preserve health. It will seldom happen that any one patient will need to be advised regarding all of these matters, but instructions concerning the greater portion of them must be given to every patient.

The successful treatment of chronic catarrh of the superior portion of the respiratory tract, may be likened to the successful suspension of a chain. If any one of its links is broken, the chain drops. So with the treatment of this disease. It may be said that one link of the chain is called protection to the head, neck, body and extremities; another link, danger of draughts and night air; another, injury resulting from not controlling an irritable disposition; another, maintaining the nasal and aural passages in a clean condition; another, abstinence from the use of tobacco, and so on through the whole list of hygienic and sanative measures, and the last link, therapeutic measures. Now, if any one of these links is broken—it is a matter of indifference which one it is—the chain is broken and falls, and the attempt to bring about recovery is unsuccessful, whether it be the patient's or the physician's fault.

My experience leads me to affirm positively, that unless catarrhal patients take such care of themselves, by proper attention to their dress, habits and daily



customs, as will lessen to a great degree the severity of recurrent colds, the disease cannot be controlled by either a local or constitutional treatment, or by both. It is only during the observance of hygienic and sanative measures that therapeutic measures can be successfully employed.

It is characteristic of catarrhal inflammation to establish a susceptibility to renewed attacks of cold. That is, past colds have so weakened the mucous membrane, that it becomes inflamed on the body's being exposed to a degree of cold, which, at an earlier stage of the complaint, would not have produced an injurious effect. In the more chronic stages of the disease, the more often will the patient realize this important fact. Past experience proves that, in the treatment of patients who have been afflicted so long as to have acquired this susceptibility, the dependence upon medicines alone must result in failure, as it is evident they cannot ward off colds. This is to be accomplished by conforming to rules pertaining to the general health of the body. But it is equally evident that the observance of these rules cannot give immediate relief to an irritation caused by morbid secretions, or to a pain occasioned by a local congestion; this relief must be the result of remedies locally applied. It follows, therefore, that the complete treatment of this disease requires the combination of hygienic and therapeutic measures.

It should not be expected that a chronic disease, *originating* solely from a repeated violation of the

laws of health, can even be ameliorated, while the patient continues to violate these laws. Not only must these violations cease, but such measures must be instituted as will prevent the continuance of the diseased action already set up; in which event the reparative processes will in a longer or shorter time, according to the age of the patient, restore the inflamed membrane to its normal condition, or to such a condition that the patient will not be conscious of the existence of the complaint. This restoration cannot be completed in a few weeks, nor in a few months, because the changes in the mucous membrane have been too great for a cure to be effected in so short a time. Time was required for congestion to produce the condition called chronic catarrhal inflammation; time will also be required for the reparative processes to undo or eradicate it. For this reason the observance of hygienic principles must not cease with the termination of the medical treatment, but must be continued for several years thereafter, or so long as there is a susceptibility to take cold.

# HYGIENIC MEASURES.

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## CHAPTER II.

### COLDS;

#### THEIR EFFECT AT DIFFERENT AGES, AND THE IMPORTANCE OF PREVENTION.

Until it is generally conceded, that every individual who has suffered from frequent attacks of cold in the head, has catarrh of a more or less severe form and of a more or less chronic character, the importance of *preventing* colds will not be given due weight. While almost every person will freely acknowledge that they not only frequently take cold, but almost constantly do so, yet not one in a hundred will admit for a moment that they are afflicted with catarrh of the nasal passages, and are horrified at the suggestion.

It will not further the object of this work to enter into a discussion of the "theory of a cold;" the subject may be elucidated with sufficient clearness to accomplish the purposes contemplated, by giving a few of the most prominent phenomena of colds, as observed in different ages from childhood to old age, and at the same time giving the possible curability of the disease at the different ages of the patient. Both the phenomena of colds and the stages of curability bear a constant relationship to each other and plainly indicate the very great importance of

preventing colds by hygienic measures, as this will make it manifest to every observing person that the older the disease, the greater the liability to take cold and the less the probability there will be for a speedy or permanent cure.

The importance of studying chronic nasal catarrh will be conceded, when we take into consideration the immense number of persons in the world who are afflicted with it. I am very certain that this disease and the complaints resulting therefrom, represent more suffering than is represented by any other disease that we are called upon to treat, yet I am sorry to say that this class of individuals receives from our profession less sympathy, less aid than does any other class of patients. Having been discouraged, by their own medical adviser, who belittled their complaint after failing to afford them the least relief, and having experimented with one after another of the numerous nostrums advertised in the public prints, they go flitting from one physician to another endeavoring to get rid of their ever present distress. Generally, they gradually become worse in consequence of the continually increasing severity of the disease, which almost always involves and impairs some important organ, and sometimes from efforts, honestly though erroneously made, to quickly cure them by local applications that are more or less irritating in their effects.

The earliest manifestations of a cold in the infant are increased flow of apparently normal mucus, and a slight increase of the color of the mucous membrane,

soon followed by its becoming more or less thickened. From this stage, the morbid processes are characterized by conditions that are apparently very diverse. Sometimes the papillæ of the mucous membrane are temporarily enlarged, producing an irregularity of surface. With proper hygienic management, these swellings or irregularities pass away, leaving the membrane in apparently a normal condition, even after the discharge of a comparatively large quantity of muco-purulent secretion. Sometimes the character of the inflammation is still more intense, serous exudation takes place from the blood vessels into the surrounding structure, known as an infiltration of serum within the mucous membrane itself, or as oedema. Even after diseased action of such intensity (provided that no organs, vital to the child's existence are involved) the inflamed parts will regain their normal condition, for the reason that the inflammation, while of so severe a type, must necessarily be of so short duration that it cannot produce any permanent change in the constituent parts of the mucous membrane, and, to produce a chronic condition, inflammation of a grade that is possible to last for a long time, must exist.

While giving some of the objective symptoms which may aid us in determining the curability of chronic nasal catarrh, I wish to make note of some well-marked peculiarities in the expression of catarrhal patients, and of the absence or presence of certain symptoms. I think that these expressions and symp-

toms—which vary in patients of different ages—may also assist in indicating the stage or the curability of the disease. The conclusions I draw from my observations are the following: 1st. If chronic inflammation of the mucous membrane has not produced painful sensations, recovery is possible. 2nd. If the inflammation is of such an age that patients are made cognizant, by reason of various disagreeable symptoms, complete recovery is seldom to be expected. I do not say that the absence or presence of pain or disagreeable sensation can be uniformly taken as an invariable guide, but that it can be noticed in the majority of cases. Of course, I have had patients who, though sixty years of age, had chronic inflammation of the nose, throat and ears of the most persistent form, but who had not experienced a single disagreeable sensation, nor did they receive even the least benefit from treatment, and others, who were quite young, that had experienced great pain in all the inflamed parts, yet recovered completely, but I think that such cases are very rarely observed.

It is not until the age of from three to fifteen years is attained, that we see the effect of long continued diseased action, in the enlargement of the tonsils or in the perforation of the membrana tympani. But even in this stage of catarrhal disease, if the patient is properly taken care of, without medical aid, every sign of inflammation and of the perforation of the drum-head will disappear.

All patients, up to the tenth year of age, are uncon-

scious of an exposure that they think might result in a cold being taken, they are oblivious to the dangerous sequences of exposure. Never in my life have I known a child of this age to say that it had taken a cold. They do not know the full meaning of the expression. They will know whether they have or have not been out of doors without their usual clothing, they will know if they have been chilly in a cold room, or in a cold hall, or in a wagon or carriage, but they cannot give one subjective symptom of a cold, such as is so frequently given by those who are several years older, and, with many of them, were it not for the objective symptoms, it would not be known that they had taken a cold. But on examination of the nasal and faucial passages after the catarrhal secretion is removed, we see a degree of inflammatory action, that we know must have been the result of the effects of many colds, taken for several years.

This indicates that the grade of inflammation must have been so mild in character and so slow in action, that the earliest symptoms had passed unobserved by either the parents or the patient. This is known by the latter not having any disagreeable sensations of which to complain. The symptoms, if any, will be noticed by the parents, not by the child; the former may observe the child breathing with its mouth open, or that it may require the frequent use of a handkerchief to free its nasal passages, but the greatest hardship that the child experiences is the act of blowing



its nose in obedience to its parent's direction. I do not say that some of them may not have headache and earache, and severe ones too, but this happens in one case out of about 20 or 30 cases.

I believe that one half of these patients will recover completely, if proper hygienic measures and domestic remedies are employed, and almost every one of them will recover if placed under proper medical care. It is with this class of patients that we first see an unconsciousness of the complaint and a possibility of complete recovery of the chronically inflamed mucous membrane in the same patient.

It is not until patients have attained about their fifteenth year, that they begin to relate subjective symptoms of a slight nature, still they will say they do not know that they have taken a cold. If their subjective symptoms are marked, it will be seen, on inspection, that their objective symptoms are equally as well marked; but it is very seldom that we have patients of this age, who relate marked subjective symptoms, and my experience warrants me in saying that fully 95 per cent of uncomplicated cases are curable.

About the twentieth year of age they begin to take ordinary precaution to prevent colds. Many times they do so more from obedience to their guardian's instructions, than because they have learned from experience that it is conducive to health. Yet very few of these patients are at all certain that they take cold on exposure; they know at times that they



### 30 COLDS FROM TWENTY-FIVE TO THIRTY-FIVE YEARS

have experienced chilly sensations up and down the back—a symptom very seldom mentioned before this age—but as soon as these sensations have passed away, they are forgotten. Their subjective symptoms are seldom painful. The blood vessels while plainly visible, are nearly straight in their course; the glands still retain their function of secreting muco-purulent matter, consequently there is an abundance of this secretion on the surface of the mucous membrane, all of which indicate that restoration is still possible. Almost every one of these patients whose ears, eyes, brain, stomach and lungs are not implicated, will, in time, recover their health, provided always, that they live in obedience to those hygienic laws which they have for many years been infringing upon, and at the same time place themselves under proper medical care. However, I am led to believe, from information received through my patients, that some of these cases do recover simply upon the observance of the laws of health; and I found upon investigation, that it was those only whose subjective symptoms were of a very slight nature that did recover.

From about the twenty-fifth year to the thirty-fifth, patients will freely admit that they have very frequently taken cold; but the uniformity with which every cold had for many years apparently entirely disappeared, without any attention or care on their part, and without its leaving any sensible bad effects, have led them to believe that the affection was a temporary inconvenience only.

This class of patients is very large, being about one third the total number treated. To them we are indebted for the prevalence of the exceedingly erroneous, but very generally entertained belief, that colds are of trifling consequence. This belief is held not only by the laity, but by a large portion of the medical profession of equal age. The expression made by this class of patients concerning their symptoms, plainly indicates their ignorance of the nature of colds, and of the complaint originating from them. After relating their symptoms, they will say: "I thought it was only a cold and would soon go away, as it has done many times before:" or "My physician said it was nothing but a cold in the head, which would pass away on taking some opening medicine;" or, "This cannot be a cold but it acts like one, at least it is not like the colds I have had before; my colds always go away, I know this from past experience," etc.

To this class of patients the physician *must*, if he regards his reputation, give an answer that is modified by numerous conditions, for the inflammation in their nasal cavities has been maintained long enough, to have produced a change that may prove to be permanent, even after the most skillful employment of hygienic and therapeutic measures. And even in the successfully treated cases, as it took many years for the congestion to produce this condition, time will be required for the reparative processes to return it so far toward the normal condition, that the patient will not be conscious of the presence of the disease.

Even this degree of restoration cannot be effected in a few weeks; or in a few months, simply because the changes in the mucous membrane have been too great for relief to follow in so short a time.

After catarrhal patients have arrived at their fortieth year, they begin to take *more* than ordinary precaution against exposure to colds and at this age they voluntarily say, that they take cold even when they do not expose themselves in the least, and that they cannot avoid taking cold even when they do their utmost to prevent it.

With this class, and all those who are older, the inflammation is of a much more permanent character; therefore a promise of a complete cure ever being made, cannot be given.

While this is true, it is possible to so treat this class of patients by a few appropriate applications each fall or spring, that they can be maintained in such good health, that they will experience but little annoyance from the complaint; nearly always their symptoms may be so much subdued that they will be unconscious of any affection in the head.

This is what I call *successful treatment* of this class of patients and in my opinion, *this is* the most that can be done for them. When *this is* done, they live almost entirely exempt from the exceedingly distressing symptoms that this disease entails, but *not exempt* from future liabilities to attacks of cold.

## THE COURSE OF COLDS.

In many respects a cold contracted by a healthy individual, is like a fire kindled in a wooden building. In the beginning, both the fire from the match and the cold affecting the patient are trifles, as both can be controlled with but little exertion; a small quantity of water proving sufficient to extinguish the fire, and a little attention to terminate the cold. But if allowed to progress unchecked a bucketful of water will be necessary to accomplish what might have been done by a teaspoonful, and even if the bucketful is not dashed upon the flames, *at the right time*, the fire will have gained such headway as to result in the utter destruction of the house. So with a cold. If proper hygienic care, and, may be a very little medication be promptly resorted to at its inception, it can be readily controlled with but little inconvenience to the patient, while if neglected at this stage, its ill effects, probably, will steadily increase, until magnified into weeks, perhaps months of suffering, possibly ending in death.

The early history of every case shows that chronic catarrhal inflammation of the superior portion of the respiratory tract, has its origin in cold in the head; also that the growth of the inflammation is almost imperceptible. The first cold causes so slight an inconvenience, as to be scarcely noticeable, while each succeeding attack is a little more severe, of longer continuance, and at much shorter intervals,

until the intervals between them are obliterated altogether, a fresh cold being contracted before the previous one has entirely disappeared. At this stage of the disease, the membrane in many cases is so sensitive that the slightest draught of air, or even a fall of the barometer, will suffice to occasion an attack so severe as to involve the entire respiratory tract. While great deal of exposure was necessary to produce the earlier colds, as the disease grows in severity, each succeeding one is contracted more easily, until the patient is unable to ascribe a cause for the last attack, but fully realizes he is in the power of the disease.

#### THE EFFECT OF COLDS.

The immediate result of every cold is enlargement of the blood vessels in the part affected. If the cold continues for several days, or is allowed to pass off *slowly*, the muscular coat, surrounding the blood vessels, will have lost some of its contractile power, and the vessels will remain somewhat enlarged. When the irritation which caused the congestion, is removed, the vessels will be more liable, because of their atonic condition, to become affected on taking the next cold; and if the next cold is contracted before the blood vessels have entirely recovered from the dilating effect of the preceding cold, it will produce a congestion still greater than the former cold, causing a consequent still greater dilation of the vessels,

leaving them still more enlarged, weakened and relaxed, when this cold has passed off.

#### THE WAY THAT CHRONIC CATARRH IS CONTRACTED.

Thus, each successive cold prepares the sufferer to take cold more easily, and more severely. Every person who is a victim of a chronic catarrhal inflammation, has acquired it in this, *and no other way*. It is the only way in which the disease can originate.

Every person should constantly bear in mind that while a cold is slowly *wearing off*, the chronic catarrhal inflammation is slowly *wearing on*. This shows that it is very important that colds should be cured as quickly as possible. It also as plainly shows that it is of the utmost importance to prevent the renewal of colds by the proper observance of hygienic rules.

Patients may not be able to entirely prevent the recurrence of colds in the head, but they can render successful treatment of the disease possible, by diminishing the frequency, consequently the severity of the attacks. *If such precaution be not taken*, the inflammation will extend to other portions of the respiratory tract, or to the auditory organs in defiance of all therapeutic measures that can be instituted.

The importance of attention to hygienic measures gains weight when it is known that with the young, the inflamed membrane, if protected from repeated attacks, will gradually regain its healthy condition.

In other words, if young patients could be so protected that they would not take another cold, they would slowly recover with but little if any medical aid.

In all cases, under the combined influence of hygienic and therapeutic measures, the mucous membrane generally loses its extreme susceptibility to take cold, and the prominent and urgent symptoms of the complaint gradually disappear.

In conclusion, I will say, that the successful treatment of every patient may be likened to the successful suspension of a chain; if any one of its links are broken the chain drops. It may be said that one of the links dependent upon the successful treatment of this disease, is called protection of the head, neck, body and extremities; another link, danger of exposure to draughts and night air; another, maintenance of the nasal and aural passages in a clean condition, if catarrhal secretion is profuse; another, abstinence from the use of tobacco and spirituous drinks, and so on, through the whole list of hygienic and sanative measures, and the last and the least link, called therapeutic measures. Now if any one of these links is broken—it makes but little difference which it is—success will not follow the treatment of such a patient.



COLDS INCURRED FROM DRAUGHTS, NIGHT AIR AND  
BY PETTY ACTS OF COMMISSION AND OMISSION.

Most persons know from experience that while they are in an over-heated condition, it is unwise to expose the head, neck and shoulders, or any limited portion of the body, to a current of cold air. Many refuse to bear patiently the temporary discomfort of an over-heating, and to obtain relief, take a seat at an open window, thereby incurring a cold, which, in the most trifling cases, will last double as many days as the discomfort from the over-heating would have lasted half hours, and in many instances a cold contracted in such a manner, proves to be so serious in results as to affect the health of the victim during the remainder of his life, even if it does not shorten life itself.

Exposure to night air should be avoided if possible. If compelled to be out at such time, more clothing should be placed around the neck and chest than is worn during the day. It would be well for females who must so expose themselves, during cold or damp weather, to draw on over their shoes, a pair of thick woolen stockings, long enough to reach to the knees.

Sitting for three or four hours in a hot theatre or lecture-room, where the air is impure, succeeded by a



ride in the street car or an open carriage ten or twelve squares—equal to an exposure of half an hour—is sure to be followed by an increase of all catarrhal symptoms, unless precautions are taken to ward off a cold, by placing extra protection on the head, around the neck and on the lower extremities. In addition it would be well to protect the hands and wrists in cold weather, the former by woolen mitts the latter by woolen wristlets or pulse warmers, as they are popularly called.

In the care one should take of themselves, there are many petty acts of commission and omission, the result of forgetfulness, or more frequently of carelessness, which almost surely originates a cold. The most conspicuous of which are, sitting on a stone door-step in a cool evening to a late hour in the night; sitting up late after the fire in the room has gone out, then going to bed with cold feet; getting out of bed with bare feet and in night-dress to wait on a child sleeping in a cold room; making the fire on a cold morning in an undressed condition; standing in an open doorway during cold or damp weather with the head and shoulders insufficiently protected, to speak a few words to a friend who is too slow in taking his or her departure; stopping to speak to a friend on the sidewalk, long enough for the feet to become cold, and to experience a chilly sensation between the shoulders; making a call on a friend who receives company in a cold parlor, or in one in which the fire is started on your entrance; receiv-

ing lessons or giving lessons on a piano in a cold room; seeing a friend out to the gate and standing there until warned of the impropriety of the act by a sneeze, or "cold streaks" going up and down the back. For the protection of those young folks who cannot forego the pleasures of the "parting at the gate," I would advise their guardian to have a portable gate constructed and placed in a room adjoining the parlor.

#### COLDS TAKEN IN THE CARS.

In these days when travel by railroad is so very common, a few words to the patients on the best means to prevent taking colds in the cars will be useful.

For men, a light cap, one that will come over the ears, so as to serve as a night-cap will be desirable. In cold weather a woolen cap is best. This cap should be put on as soon as the car is entered. A loose blouse should take the place of the coat usually worn. Slippers must not be worn. If there is a draught in the car, face it, do not let it strike the back.

Have the bed made with its head toward the engine; the dust will then be driven to the foot, where it will do the least harm. Be sure to have a sufficient quantity of bed clothes to keep warm.

A soft, loose knit, woolen hood is the best head wear for women; this should be worn at night also. It should be warmer in winter than in summer months. The corsets should be removed at night and a loose woolen wrapper worn for a night dress. The stocking supporters as well as every contracting band around the waist should be loosened.

Every adult should take from five to ten grains of quinine on going to bed. It will be well to rub the hands, feet, face and neck with a little vaseline at the same time.

## DRIVE A COLD AWAY.

A cold should be *driven away* as soon as possible. It should not be allowed "to go off itself." It is while a cold is remaining, that it is preparing the mucous membrane to take on chronic inflammation. No one can become affected by chronic catarrhal inflammation, except by neglecting their colds; that is, by allowing them to "wear off." While the cold is "wearing off" the catarrhal disease is *wearing on*.

Many persons say, "I do not know how I got this catarrh. What is the cause of catarrh? Is it the limestone dust, or the smoke?" In answer to the question, do you take cold easily and frequently? They answer in the affirmative. In answer to the question, do you do anything for your cold? They will say, "no, I do not." If this person had driven off every cold, he would not have been the victim of catarrh. This disease cannot be contracted except through the result of carelessness; the victim having been for a long time indifferent to exposures that result in taking cold, and allowing each of his numerous colds to "wear off," he has thus compelled the chronic catarrh to "wear on."

Even when patients have been successfully treated and have remained in good health for several years, a slight cold, if allowed to slowly pass away, will again prepare the mucous membrane to take another and more severe cold. A continuance of this neglect will eventuate in the return of the catarrhal inflammation,

not only to its original severity, but to a far more severe form.

On the other hand, if each coldt is checked as soon as possible, and whatever effects it has produced are quickly removed, there is less liability of the patient to take a cold, and should a cold be taken, it will produce less severe results.

#### VASELINE ON THE FACE.

No one who has applied vaseline to the face, and has rubbed it well on the nose for a cold, will say that the fashion of our grandmother's in anointing our noses was notional only. Almost immediately after the application, a sensation of relief is experienced in the nostrils. It is not only beneficial to children but also to adults.

If the ears are unpleasantly affected by cold air, apply vaseline to them also.

#### HOW TO TAKE A COLD.

Let school children play during recess without their heads being properly covered.

Sit in a barber shop in your shirt sleeves while waiting for "your next."

Put on a pair of light thin shoes on a damp evening, when you call on a young lady.

Fail to change your shoes and stockings after coming home from a walk on a rainy evening.

Sit in a car near an open window on a cool day.

Send little girls out, in the fall or early spring, to play in short thin stockings, and skimpy skirts.

Go down to breakfast, through cold halls, without a wrap on a chilly morning before the fires have been well started.

If you have a bald head, refuse to wear a wig or cap.

When you go to the Grand Opera, sit with your back to one of the side doors.

Take a long bicycle ride, then stand along side of your machine for half an hour describing it.

Go out into the lobby, during an interval of the singing of Waldauer's Musical Union, and promenade around without your overcoat.

Leave off your heavy under clothing on mild April and October days.

Have your hair cut short and shampooed every two weeks, especially fall and spring.

Wet your head every morning in cold water.

Take a hot bath in the evening and then sit up in your room, thinly clad, to finish the last two dozen pages of an exciting novel.

Run a square to catch a street car, and take off your hat for a few moments to cool off when you catch it.

Take a hot drink before going out into the damp air.

Sit in the hall or near an entry after dancing for half an hour.

Wear your light summer hosiery through October and November, and after the first warm day in spring.

Throw your overcoat open on a blustering winter day to show your nice, new necktie.

Leave off your rough overcoat when you go driving, and wear your nice thin one to look well.

Go to an evening party in a dress-suit without putting on heavy underwear to compensate for the lightness of the cloth.

Do up your back hair high when you have been accustomed to wear it low, and go out on a windy day.

## CHAPTER III.

### THE HEAD.

#### ITS PROTECTION DURING THE DAY.

The hat usually worn by men and boys during the day is a sufficient protection to the head against the inclemency of the weather. It is to be regretted that women, as a class, do not use the same precaution. The covering for their head, even in severe weather, is generally made to conform to fashion, in utter disregard of comfort and to the detriment of health.

A fashionable twenty-five dollar straw hat, perched on the upper and rear portion of the head of a female patient, whose ears are so sensitive as to require to be filled with cotton, whose mouth must be opened to allow respiration, whose nose requires the frequent application of a handkerchief, whose cough is the harbinger of her approach, and whose hollow cheeks and weak voice indicate that catarrhal disease is making rapid inroads upon her system, may be fashionable and stylish, but it certainly is not conducive to health. Persistence in following the demands of fashion in this particular, as in other matters of dress, is constantly affording an opportunity for the inception and progress of catarrhal disease. The fashionable hat of the present day, which is frequently made of

straw or other open material, is placed on the head in such a manner as to afford practically no protection to the head. Even were the hat made of close material, the cold wind has a fair sweep between the top of the head and the under portion of the hat.

No style of bonnet that I have seen during the past few years, can give the requisite protection on a blustery, cold day, to the ears and neck of a catarrhal patient.

In the winter of 1869, I saw a few ladies who had the good sense, as well as the good taste, to cover their heads with a black or brown velvet hood. This hood was quilted—not heavily—and was so formed as to cover the whole of the head, and back and sides of the neck. A band of brown fur bordered its front, sides and back, which, while not adding to the warmth, enhanced its beauty. This garment, afforded ample protection from the cold winds that usually prevail during our fall, winter and spring months.

A nubia may be so wrapped around the head, ears and neck as to protect the wearer nearly as well as the hood mentioned. It should be wrapped over the head and under the chin from one to three times, and several times around the neck, according to the severity of the weather; the hat usually worn, may then be placed over it. With this protection, if the remainder of the body is proportionately well clothed, a few hour's walk or ride in a sharp, frosty atmosphere, will not only be invigorating, but enjoyable.



## A LIGHT CAP, OR A WIG TO PROTECT BALDNESS.

Patients who are bald or whose heads are but thinly protected by hair, are very liable to take cold even in warm weather. The scalp being uncovered, allows a rapid evaporation of the perspiration and consequent loss of heat, which frequently results in maintaining a continuous cold. To prevent this, they should wear a light cap or what is much better a wig. Either of which can be made to protect the head nearly as well as the natural hair.

## NIGHT CAPS.

A covering or cap for the head, during the hours of sleep, is as essential for comfort and protection as are bedclothes for the body. That a strong, hearty individual may not require the protection of a night-cap is admitted; but it does not follow that a catarrhal patient, whose liability to take cold is the bane of life, should not protect his or her head in this way, any more than it follows that the sick should refuse to take medicine because those who are in good health, not only do not need it, but would be injured by it.

I have asked of many patients their reasons for not wearing a night-cap, as they claimed with much earnestness, to have been watchful of every source from which they might have taken cold, and to have used every precaution to prevent one. Some replied that they had not taken the matter into consideration; others, that they did not think it necessary, as the protection of their room was sufficient to prevent



their taking cold; while still others answered that they had been told that it would render them more liable to take cold on rising in the morning. The conclusion to be drawn from the last answer is, that protection should not be given to the weak, because excess of covering has a weakening effect upon the strong.

Every infant up to its eighteenth month, should in all seasons of the year, have its head protected by a light cap during the day, and a heavier one during the night; and every child, up to its tenth year, should wear a night cap during the fall, winter and spring months. Nine-tenths of the earaches and attacks of croup and sore throat, grow out of the neglect of this very simple precaution. The dangers of an earache are very frequently underrated. "Of course the earache is a painful complaint, but children will outgrow it, they always do." Such expressions are made by those persons who do not know that four-fifths of our mutes have lost their hearing from earache during their infancy.

#### THE HAIR.

Nature's effort to make the hair a means of protection to the head, should not be thwarted by the use of the scissors. The hair should not be cut so short that it can scarcely be parted. This is an undue exposure of the head. Male patients very frequently commit this grave error. Females almost universally go to the other extreme. They wear their hair of

such length, that its massive coils become a burden and a frequent cause of severe headache. Those who do not possess hair enough of their own growing, to form a mass as large as a child's head, procure an additional amount to effect this increase. The practice of cutting the hair very short, or of wearing it very long, should be discontinued.

#### SHAMPOOING.

This is injurious to the scalp and hair. It removes every particle of oil from the head, causing the scalp to become dry and full of dandruff, the hair to lose its glossiness and natural color, generally giving it a faded and lighter appearance. But worse than this, because of the absence of the oil, the patient is more liable to take cold, on even a slight exposure of the head to a draught of cool air.

The application of oil to the head is very beneficial to the scalp and hair. It should be well rubbed on about once a week, oftener if the hair has a tendency to become dry. This practice will lessen the liability to colds after head-washings and hair-cuttings. Plain vaseline is the best oleaginous substance that can be applied to the head. It does not become rancid and has a cooling and healthful effect upon the scalp.

A scalp that sheds dandruff may be thoroughly cleansed by rubbing it well, once in three weeks, with an ounce of vaseline, then combing it with a fine toothed comb and rubbing with a towel. No colds are taken.

## CHAPTER IV.

### WRAPPINGS FOR THE NECK.

#### FURS.

The fur neck-wraps worn by males, and the fur tippets and capes worn by females are injurious. They fit so closely that they excite perspiration of the parts covered, while other parts of the body may be cold. Because of this extreme contrast, the wearer is almost certain to take cold in the throat and head. All close wrapping of these parts tends to increase the congestion of the mucous membrane by their excessive warmth. Light, loosely woven woolen wraps are preferable, and necessary during cold weather, for both male and female patients. If these do not keep the neck and upper portion of the chest warm enough, an additional woolen under-vest should be worn.

Some persons believe that the habit of protecting a diseased throat with any kind of wraps, will increase the tendency to take cold. This is a grave error. It is an undisputed fact that a healthy person can bear more exposure to inclement weather than a catarrhal patient can encounter with safety. But this is no excuse for neglecting to protect the weak throat. As well might the sick man refuse to take medicine

because his robust neighbor does not need it and would be injured by it.

#### SHIRT COLLARS.

Constriction of the neck should be avoided. I have frequently had patients who complained of a sense of dizziness on the inclination of the head toward either shoulder. With a respectable minority of them, it was ascertained that this unpleasantness was occasioned solely by a constriction of the neck, by a collar or shirt band. I have often observed the collar fit so closely, it was with difficulty a finger could be inserted between it and the neck. Of course a constriction of a less degree than this, will prevent a free circulation of the blood in the head, and will not only sustain but aggravate any congestion existing in the mucous membrane, or other tissues. Shirt collars and shirt bands should fit the neck so loosely that the four fingers of both hands can be inserted between them and the neck.

#### LOW-NECKED DRESSES.

It is quite questionable if a low-necked dress can be worn without injury resulting to the wearer from such unusual exposure, but of course no female who is liable to suffer from cold, would be so forgetful of the laws of hygiene as to wear a low-necked dress on any occasion or in any season of the year.

## CHAPTER V.

### CLOTHING.

We cannot at all times control the temperature of the atmosphere surrounding us, but if we protect the body with the proper kind and amount of clothing, a low temperature, instead of being a detriment, will prove to be the most favorable condition for the promotion of mental as well as physical vigor. Patients enjoying good health, having no symptoms of disease, except those occasioned by their catarrhal affection, need not discontinue their daily occupations, even if, during the cold and damp seasons, they are exposed to sudden and great changes of temperature, but they should take great care that their bodies be well protected by clothing.

During our cold seasons, the air within our buildings is warmer than that without. It is impossible to avoid the change from the one to the other. In order that no injury may result from the sudden transition to the colder atmosphere, an additional supply of under-clothing should be put on before leaving the sleeping room, besides the usual number of outer garments worn, and in very cold weather an extra amount of over-clothing added before going out of doors. It is astonishing how great a number of persons there is who neglect to take these precau-

tions. Many of these persons, if spoken to on the subject, will triumphantly say. "But I wear a large and thick chest protector!" Now, even the largest of these scanty garments covers the front portion only of the lungs, leaving the stomach, the back and sides of the body, as well as the upper and lower extremities, insufficiently clad.

Deficient amount of clothing, colds, and chronic catarrh of the superior portion of the respiratory tract, bear the relation to each other of cause and effect. We could have no colds without some defect in the covering of the body; we could have no chronic nasal catarrh without a frequent repetition of colds; therefore the maintenance of the whole body in a warm, equable temperature is of the greatest importance, and no effort on the part of the patient that will effect this, should be neglected.

The fact that patients have acquired a susceptibility to take cold on the least exposure, plainly indicates that they should protect themselves by wearing additional clothing until such liability no longer exists. This advice is especially applicable to female patients, from the fact that while in an enfeebled condition, taking cold more easily because of their catarrhal complaint, they continue to follow the customs of their sex, in clothing themselves with a kind and form of dress that is imperfectly adapted to ward off the injurious effects of sudden changes of temperature. A lady, whose garments below the waist consist chiefly of loose skirts, in passing a corner of a

street on a blustery winter's day, is thoroughly chilled, the warmth from her body being almost instantly blown away from her skirts. It is barely possible that a strong woman can endure such exposure with impunity, but there exists no doubt respecting a catarrhal patient being injured by it.

One of the most remarkable facts connected with dress in general, is the difference between the form and amount of clothing usually worn by women, and the amount and form worn by men, as compared with the strength or power of resistance in the sexes. If the lighter garments were placed on the body of the sex possessing the greater strength or power of resistance to external atmospheric influences, there would seem nothing remarkable about it; but these conditions are reversed, the weaker sex wearing not only the less clothing, but that form of it which affords the least protection.

Most women are conscious that they, as a class, do not possess the bodily strength to resist the effects of inclement weather that men do, yet notwithstanding this fact they clothe themselves with such light material, and which enwraps their bodies in so loose a manner, that they receive not more than one-third, or at most one-half the protection from their garments that men do from their's. I am certain that if the strongest man were to clothe himself in the same form and kind of garments that women do, he would soon suffer from some form of sickness originating from the exposure. Although every weak, illy-clad woman



will readily admit this, yet it would require quite as great an effort to induce her to put on a sufficient amount of the right kind of clothing, as it would to persuade an old tobacco smoker or chewer to give up "the weed." The exclamations and protestations of my patients on this subject are so nearly alike, it would seem as if they had agreed, in convention, to repeat the same words. On being informed what amount of clothing they should put on, in addition to their usual number of garments, they say: "Oh, I can't wear two, three or four suits of under-clothing, it would kill me to carry such a load. I tell you I can't do it. I would do almost anything to get rid of this horrid cough and headache, but I can't wear that number of suits. Why, it would kill me outright! and I might as well die one way as the other! and besides how would I look? I'd have no shape; I'd be as broad as I'm long; I have not a single dress I could wear, every one of them would be too small!"

There are a few patients who cannot be persuaded to clothe themselves properly, and that they may continue under medical treatment, will make promises—which will be repeated as often as the subject is mentioned—to take the utmost care to avoid exposure to night air, draughts, etc. Other than an unfavorable result need not be expected from the treatment of such patients. In the majority of instances these promises are not kept, partly because of their inability to do so, being prevented by unforeseen circumstances, but many times on account of inattention,



a habit of some year's growth in these patients. However, such unreasonableness is not usual, the majority, although protesting when the subject is first mentioned, do put on the requisite number of suits, and having worn them a few weeks, express themselves as pleased with the additional warmth they afford. The beneficial effects are so plainly manifested, and they become convinced of the great importance of clothing themselves warmly, nor do they forget or neglect to put on the suits each succeeding fall, and wear them during the whole winter.

#### UNDER-CLOTHING.

Persons of both sexes and all ages, should wear in all seasons, the fine knit drawers and vest, usually found in furnishing stores. These garments are made of a material consisting of about one-third wool and two-thirds cotton. This proportion of cotton to wool is more pleasant to the wearer than either all cotton or all wool goods; the cotton garments producing a cold sensation at such times as the body is covered with perspiration, while the woollen garments do not absorb the moisture as completely as cotton ones.

When the weather becomes cold in the fall, a heavier suit should be put on over the thin stocking-knit suit, already on the body. When the mercury has fallen as low as 13° F., female patients should put on a third suit as heavy as the second; and if they are to go on a journey in the railroad cars, or are otherwise to be exposed for several hours, during the

coldest winter months, a fourth suit should be donned.

These supplemental suits should be made of pure wool, cut and sewed from blue, yellow, white or grey flannel. Many of my female patients, who were confident they could not endure this weight of extra clothing, were astonished to learn that these four suits weigh less, by nearly half, than a fashionable walking dress, and that the first three suits weigh less than the flannel skirts usually worn in cold weather, and also less than their felt and cotton skirts. Doubtless lady patients would feel less encumbered wearing heavy skirts suspended from the waist or shoulders, than in wearing the three suits, as their limbs would then be left freeer, being less wrapped. But the wearing of the heavy skirts is too loose and open a mode of dress, and they, when put upon the scales, weigh double as much as the material in the suits, while affording less than half the protection.

#### BACK-PROTECTOR.

For several years I have advised those patients who experience cold chills on the back, to provide a back-protector. It may be made to cover the entire back from the waist to the back of the neck, passing as high as the clothing. It should be quilted about half an inch thick, for those who are thin in flesh. Both the size and the thickness will depend upon the liability of the patient to become slightly or severely chilled in the back. This protector may be re-

quired by some patients, even when they wear one or more suits of under-clothing.

#### CLOTHING FOR CHILDREN.

Children, especially girls, who have arrived at the age of ten years, are not as a usual thing, sufficiently well clad about the neck and upper portion of the chest or on their extremities. The continual exposure of the neck of young girls rarely fails to generate a catarrhal complaint even in those of strong constitution, and it will certainly maintain, if not increase any inflammation existing in the head or throat. Parents may overlook the existence of a secretion from the nasal passages of their children, being conscious only of the discomfort experienced from enlarged tonsils. The fact that a child has enlarged tonsils, is an evidence that it has suffered, for several years, undue exposure from the want of proper kind of clothing, and is an indication that it should be more warmly clad, and should be placed under medical treatment at once.

Those children afflicted with enlarged tonsils are liable to suffer a gradual decrease in their hearing, and be seriously affected by quinsy, for the reason that nearly every cold which attacks them makes itself felt in the throat, and is liable to result in the formation of an abscess in one or both tonsils or, should they have an attack of diphtheria, scarlet fever, measles or any other disease, which in its inception or progress bears special relation to the throat, the

liability to serious complication in these parts is much increased.

#### CHANGING UNDER-CLOTHING.

Weak patients should change their under-clothing as seldom as is consistent with cleanliness; as every change robs the surface of a portion of the oil that is necessary to keep the skin soft and lubricated, and to make it a non-conductor of heat. When the skin is in an oily condition, as is found in the healthy individual, the liability to be affected by cold is much less than when it is rough and dry.

The oily state of the body is maintained by many thousands of sebaceous glands that are located in the integument. When a patient is in a weakly condition from effects of a catarrhal disease, these glands do not supply this important non-conductor as abundantly as the skin requires it, and for this reason those patients who are thin in flesh and on the surface of whose body there is little or no oil secreted, should not change the knit suit, worn next the body, until it has become soiled, which may be in one, two, three or more weeks. I have noted, for many years, the effects of this frequent changing of the under-clothing and feel warranted in saying that the weaker the patient, the less frequently should these changes be made; and, too, the less frequently will it be necessary to do so, as the dry skin does not soil the clothing nearly so rapidly as does the healthy, oily skin.

If the suit worn next the body does not cause

undue perspiration during the night, it should be worn at this time as well as during the day.

The supplementary suits should not be permanently removed until the weather has become warm in the spring. The last supplementary suit—leaving the thin knit suit next the body—may usually be discarded about the 15th of June. Warm, even hot days may occur prior to this time, when the patient may be occasioned some discomfort from the presence of the extra suits. But it is far better to bear patiently this temporary unpleasantness, than to risk the danger of days' or perhaps weeks' sickness, the result of a too early removal of the under-clothing. It would be well to remove some of the outer clothes during the hot hours of the day; this would prevent the exhaustion occasioned by the heat.

It should be borne in mind that the thin suit, worn next to the skin during the hottest days, is not put on for the purpose of keeping the body warm, as, in this weather, it would be warm enough without any clothing, but to prevent the sudden loss of heat by the rapid evaporation of the perspiration. A severe cold may be contracted in the hottest days in August, by exposing the perspiring body to a cool or even a pleasant draught of air. The temperature of the surface of the body may in this way be suddenly lowered fully ten degrees, which is very likely to result in a cold.

## CHAPTER VI.

### THE FEET

#### STOCKINGS.

If the wearing of woolen stockings causes the feet to perspire, in which condition they are more liable to become cold, a pair of thin cotton stockings should be worn under them. It will be well for patients suffering from cold feet, whether they are damp or not, to wear, during cold weather, two pairs of stockings; one of cotton—next to the feet—and one of woolen; neither of which pairs need be very thick.

Cold and damp feet are almost certain to induce and aggravate a congestion of the mucous membrane of the nasal passages, throat, ears or lungs. The recovery of a patient, who has even a slight catarrhal affection, will be retarded if the lower extremities are not maintained in a warm and dry condition.

#### BOOTS, SHOES AND SLIPPERS.

Thin and light boots, or shoes low in the ankles, should not be worn in cold and damp weather. Heavy, loose-fitting boots, with double uppers and soles, are proper coverings for the feet in such weather.

India-rubber over-shoes should be worn during wet

or damp weather only, and should be removed from the feet whenever the wearer enters the house.

Slippers should not be worn by either sex during cold or even cool weather. One of the ways in which a cold is mysteriously (?) taken, is the exchanging of a pair of warm boots or shoes for a pair of low slippers. Those who do this have forgotten that they have not only uncovered their feet and ankles, but that naturally they are placed in the coldest stratum of air in the room. If they will take the precaution to draw over the stockings usually worn, a pair of heavy woolen socks, the chances for taking a cold from such an exposure will be greatly reduced.

#### ELASTIC GARTERS.

A majority of females maintain the tops of their stockings in position by means of elastic garters. Girding the limbs in this way is liable to produce cold feet, because of impeding the circulation, the veins being so much compressed by the elastic bands that the blood cannot leave the limbs as readily as it should do, while the heart forces the blood to them through the arteries, whose walls are firm enough to resist the pressure of the garters. Almost every patient will claim that her garters are not tight, yet will acknowledge that when they are removed at night, the creases below the knee, caused by the constriction, are deep enough to bury half the thickness of a finger.

In order to maintain the hose in their proper place



without the aid of garters, they should be pulled on over the knit drawers, and held in their proper place by elastic straps having a brass clasp or loop at each end, so formed as to securely retain the hold on the top of the stockings. It will require two of these straps for each stocking; one on the inner and one on the outer side of each limb. As the stockings worn are usually long enough to reach above the knees, more of the limbs will be covered in this way, than when they are held in place by the strangulating elastic, or non-elastic garters.

#### FOOT BATHS.

A good remedy for cold or damp feet is to bathe them at bed-time. For many years I have recommended that when my patients take this bath they should, after undressing, sit upon the side of the bed with the feet immersed in a sufficient quantity of water, heated to blood heat, to cover the ankles; at the same time a blanket should envelope the body, and be allowed to fall around the bath tub.

Sitting upon the bed while taking this bath has two advantages: First, the body being in a nearly erect position will receive more of the warm and moist air from the foot tub. Second, the patient will be enabled to get under the bed-clothes without the loss of the warmed air enclosed around the limbs and body by the blanket: two adjuncts necessary to a successful foot bath.

After the feet have been in the warm water about



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three minutes, they should be raised out of the tub, and a pint of boiling water poured into the bath ; the feet should then be immersed about three minutes longer, when a second pint of hot water should be added in the same manner, and at intervals of three minutes, a third, fourth or more pints be added until the water in the bath tub is as hot as the patient can bear it. After the feet have been in the water about fifteen minutes, they should be dried and well rubbed with a coarse towel, and an inunction of vaseline applied with considerable friction ; lastly, covered with a pair of cotton stockings well warmed.

Plunging the feet into cool water, immediately after rising in the morning, has frequently the effect of keeping them warm during the day. Young persons only should try this experiment.

### INUNCTION TO THE FEET.

For years I have recommended the application of inunctions to the feet. Such applications are usually attended with greater benefit if made right after a warm foot bath, but may be applied with good results in connection with friction alone. These applications assist in preventing the feet from becoming cold.

If there is a fetid odor arising from the feet, salicylic acid grs. v., and hydrate of chloral grs. x., ad  $\mathfrak{z}$ ij of vaseline, will after a few bathings and annointings, correct this condition, except in rare instances.

## CHAPTER VII.

### THE SLEEPING ROOM.

#### ITS TEMPERATURE.

Dr. Horace Dobell, of London, in his excellent work entitled "Winter Coughs," makes remarks on the temperature of bed-rooms, that are so appropriate that I will quote them. He says: "But before leaving the subject of sudden changes of temperature, I must not forget to speak of sleeping-rooms. It is quite astonishing what follies are committed with regard to the temperature of sleeping-rooms. On what possible grounds could people justify the sudden transition from the hot sitting room to a wretched, cold bed-room, which may not have had a fire in it for weeks or months, it is impossible to say, but it is quite certain that the absurd neglect of properly warming bed-rooms, is a fruitful source of all forms of catarrh. We cannot too much impress this upon patients."

Those patients who do not become warm quickly after going to bed, during cool or damp weather, should have the bed-clothes warmed by a hot smoothing iron, or a warming bed-pan, before they retire for the night. Warming the bed may be necessary, even if there has been a fire in the sleeping-room all day.

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If a patient is subject to profuse night sweats, the dampened bed-clothes should on each morning, be removed from the bed, and fresh, well dried cotton clothes (linen sheets and pillow cases should be eschewed), supplied in their stead. If the perspiration has been but slight, the bed-sheets alone may be all that require removal, and these may be so slightly dampened, that if hung before a grate fire they will be sufficiently dried for the next night's use.

#### ITS VENTILATION.

Good ventilation in every room of a house is essential to comfort as well as conducive to health, and of course the bed-rooms of those whose respiratory organs are affected do not form an exception. The greatest care should be taken to maintain the air in this apartment in a pure condition.

There can be no doubt that much of the benefit derived from an out-door or camp life, is due to the supply of good, fresh air. Although deprived of a soft bed, the healthy person as well as the invalid feels refreshed and invigorated after a few nights' sleep under a tent, the tendency to a recurrence of colds is lessened, and they are reduced in number and severity. This has been demonstrated time and again, during the years in which overland trips to California were frequent, and during the late war.

Many patients have informed me that they have experienced an occluded condition of the nasal passages, before rising from their bed in the morning.

In nearly every case of the patients so complaining, it was found that the cause was owing to either insufficient protection to the head, during the night, or to a vitiated state of the air in the bed-room, in some instances to both causes.

The air in a sleeping-room ought to be as pure in the morning, as it is on going to bed at night. In order to maintain this purity, the lower sash of the window ought to be raised, and the upper sash lowered; the former raised one-fourth the distance that the latter is lowered. The extent to which the sashes should be raised and lowered, will depend on the degree of the out-door temperature.

If the air from an open window blows directly on the bed, a curtain should be so interposed as to prevent the draught from striking the sleeper, or the bed moved out of the draught.

#### FLOWERS IN THE BEDROOM.

If patients have experienced symptoms of asthma or pruritic catarrh (hay fever), they should not permit flowers to remain in their bedroom during night, as the mould from the earth in the flowers pots is injurious. The odor of many flowers is frequently irritating to such persons.

## CHAPTER VIII.

### DIET AND STIMULANTS.

A good nourishing diet, consisting of food known to the patient to be especially easy of digestion, is advised. A patient having been, for a long time affected, and in whom the disease is complicated with dyspepsia, has been taught by experience that his stomach is a law unto itself, which law cannot be infringed upon with impunity.

Dr. Beard's remarks on the kind of food and fluid that should be avoided in "hay fever," (which is a complication of nasal catarrh and a sequence of it), are very appropriate. He says: "Those who are specially susceptible to particular substances, those for example, who cannot digest pork or sausages or pastry, or who are made nervous or sleepless by coffee or alcoholic liquors, or whom certain fruits injure by their mechanical action on the pharynx or through the digestive organs, need no advice to abstain from those things, while the symptoms are on them." As a general rule, plain food only, such as is known to add strength to the body, should be taken, all else should be avoided. We should "eat to live," not "live to eat."

"Charcoal crackers" made of flour, sugar, pulverized charcoal etc. frequently have a beneficial

effect on the digestion of those patients who suffer from that form of dyspepsia, in which the food in its process of digestion evolves gases, and the fluid becomes acrid. From two to five of these crackers, each of which is about two inches square, should be eaten immediately after each meal. They are not unpleasant to the taste.

Children afflicted with catarrh, having a pale complexion, and with mucous membrane in a relaxed condition, should eat plenty of animal food; candies, cake and pastry usually disagreeing with them by causing the contents of the stomach to become sour.

No stimulants should be taken unless prescribed by a physician.

#### WATER DRINKING.

Drinking stimulants may become a habit; drinking water can not become a habit, it is nature's demand, consequently every thirsty person may drink water to quench his thirst at any time of the day or night; of course, this includes drinking during meals. Some may say: "Do not drink water while you are eating, it will weaken the gastric juice (?) and thus retard digestion." They will refer to the fact that animals do not drink while eating. These theorists usually recommend "slow and thorough mastication and insalivation of the food." Why do they not refer to the manner in which these same animals bolt their food? Generally, he who is healthiest drinks the most water, and at all times; water maintains his health; he would be feverish without. This individual is also a fast eater, as is every healthy person.

## CHAPTER IX.

### THE EFFECTS OF EXCESSES ON THE MINDS OF PROFESSIONAL AND BUSINESS MEN.

There are many professional and business men, who suffer from a constant desire for change and excitement, from irritability of temper, from inability to hold the mind continuously on a definite subject, from mental and physical weariness, from forgetfulness and a state of mind that tends to waver or jump from one trifling subject to another. The causes of these mental and physical ailments are solely due to the effects of excesses, but are almost universally laid to close and long continued application of the mind. No doubt this is many times the case, but not as frequently so as some suppose. My observations have lead me to believe that these symptoms are far more frequently the results of excesses and of colds, than of close mental application. Catarrhal inflammation of the nasal passages is more frequently the cause of these symptoms of "brain exhaustion," as they are sometimes called, than is credited to it. As this inflammation is many times a painless complaint, the sufferers are entirely uncon-



scious of its existence. If they do know it, or suspect it, they usually consider it as a trifling matter, being long accustomed to slight attacks of cold in the head, which they have observed pass away without producing serious illness. Their expressions about their condition are usually: "Its nothing but a cold. It will soon pass off", and such like. Besides neglecting their colds year out and year in, they disregard the laws of health by indulging in the use of tobacco and stimulants, thus increasing the congestion of the mucous membrane of the nasal passages and throat, which in turn has its effects on the brain, lungs, heart and stomach. Whether the nasal inflammation has the ultimate effect of producing hyperæmia of the brain; or whether this condition comes from, what is called, reflex action, I am not prepared to say, but I do know that brain disturbance very frequently follows such an inflammation. At the same time, these victims of excesses are taxing their weakened brain (which is now becoming sensitive because of the hyperæmia) to its utmost in attending to business. Not that their business requires more brain power than usual, but that their brain is not now equal to their usual business.

Show me the man who has indulged in the use of tobacco and stimulants, even moderately, from his fifteenth year to his fiftieth year of age, and I will show you a man who frequently complains of being exhausted while he is attending to his business; he will also complain of the other mental ailments men-



tioned and will require long vacations. If to these troubles he has added other diseases, acquired through immoral practices—which are also partly the results on the mind of the use of tobacco and stimulants, the tobacco, through its depressing effects begetting a desire for stimulants, and stimulants, venereal excesses—his cup will be full to overflowing. When such a man does break down, he is far more disabled mentally than physically. Show me the man who has not committed these or other excesses, and has been careful to avoid taking colds, and I will show you a man who does not require a vacation, except from 9  $\frac{1}{2}$  P. M., each night to 6  $\frac{1}{2}$  A. M., next morning. He will be good for a full days work, every working day, until he is seventy years old, and when he breaks down, it will be from natural physical decay rather than from mental disability, his mind will be clear and active. A marked contrast to the closing days of the man of excesses.

The man who does not commit these excesses, does not complain of being unable to get his business off his mind at bed time. When he retires for the night, he sleeps soundly, and is completely rested; after which his brain is ready for another hard day's work. He has no disease to maintain an unusual quantity of blood in his brain, which is the sole cause of sleeplessness. With him, as with other healthy persons, the usual normal proportion of blood leaves his brain when he goes to his bed for rest, so that sleep is possible.

It is the man whose brain is in such a hyperæmia condition that he cannot attend to business, that is unable to sleep soundly. In other words, he cannot sleep for the reason, as he says, that he has not sufficient command of his mind to withdraw it from his business, yet when he is in his office, he has not sufficient control of his mind to hold it on his business, showing plainly that it is not because of attention to business, as said by almost every physician, but to other causes that prevent sleep; namely, a diseased condition of the brain, preventing the normal decrease in quantity of blood in the brain that is a prerequisite to healthful sleep.

"Oh," says some one to a forty-five years old merchant who both smokes and chews tobacco inordinately and drinks whisky daily, "you have applied yourself so constantly and so long to business that you have exhausted your brain; you are neurasthenic, sir."

This is not the whole truth, or rather it is an incomplete statement of the case, consequently the information given is erroneous, but worse than that, it is dangerous.

That his brain is exhausted is evident from his inability to use it as he formerly had done, but while this incapacity to attend to business demonstrates exhaustion, it does not prove that it is the cause of exhaustion.

If I should see a farmer who lives in a malarial country, and whose whole system is broken down by daily attacks of intermittent fever, fail to follow

his plow, I could as truthfully, or rather as correctly say: "My dear fellow you have plowed your farm for these fifteen years, it is too much for you, your muscular system is exhausted, sir." That this farmer's muscular system is exhausted is evident from his inability to attend to his daily work, but does this weakness demonstrate that his work is the first cause of his disability? Far from it.

Is this farmer's muscles exhausted by the plowing or from the malarial fever? Is the merchant's brain exhausted by the attention to business or by other congesting agencies? It is very important to these two invalids that they receive a *full* as well as a correct answer to these questions. It is just as evident to me that the farmer's muscular weakness is not due to plowing *per se*, as it is that the merchant's mental weakness is not due to his attention to business *per se*, and in the latter case, it is due to the results from indulging his animal appetites to such an extent that his brain suffers secondarily.

A large percentage of patients of this class have voluntarily stated to me, that they had feared that the use of tobacco and stimulants had much to do with their inability to attend to business, but not being informed of their injurious effects and having acquired a confirmed taste for them, and seeing their medical adviser, as well as other medical men of renown, addicted to the same excesses, they continued their habits and frequently endeavored to drown their troubles by still greater indulgences.

With a few exceptions, these invalid business and professional men would have desisted at once from these excesses, if they had been correctly informed of the cause of their infirmities. This is the reason why I say that the physician, who informs his patient that attention to business is the sole cause of his brain exhaustion, has given dangerous as well as erroneous advice, because it is an incomplete statement of his case.

If a business man observes that his mind is clear and quick when his head is in a normal condition, and that it is dull, cloudy and slow when his head is affected by a cold, or in damp weather, or after he has partaken of a wine supper and smoked inordinately, he may rest assured that these symptoms of mental disability demonstrate plainly that they result solely from inflammation in his nasal passages and the cavities connected with them, and not from continued application of his mind to any subject.

It is well known when the brain performs its functions, that is, carries on a train of thought, this act, in itself, induces a greater flow of blood to it than there would be, were it in a passive condition.

Even the mental exertion involved in computing as simple a calculation as  $2 \times 2 + 2 - 2 \div 2 = 2$  occasions some degree of hyperæmia, but when the calculations are complex and involve numerous conditions, the degree of hyperæmia must be far greater.

It is evident that if a brain is made hyperæmic by disease, as is done by chronic catarrhal inflammation,

before commercial calculations and care are undertaken, relief from mental exertion would be as beneficial as desisting from following the plow would be beneficial to the farmer spoken of; but it is also quite as evident that relief from malarial influences in the one instance and the congesting agencies, in the case of the merchant, such as repetitions of colds, resulting from the use of tobacco and stimulents, etc., that induce and maintain an abnormal flow of blood to the brain, are far more important matters.

I will answer a few questions that I conceive might be asked of me, at this stage of the argument, namely :

Is it not well known that there are professional and business men who do not commit the excesses spoken of here, yet are troubled, mentally, as are those who do commit these excesses ?

Every individual that I have seen that has been afflicted mentally, as are those who have been addicted to the excesses mentioned here, has some brain trouble, it may be called hyperæmia, which I prefer, or inflammation. The cause of this brain trouble may not always be the result of excesses nor always from inflammation of the nasal cavities, but in very many instances, to my certain knowledge, it is from these causes. I ask, why is it not the most likely place to produce just this kind of a disease ?

These cavities and the sinuses connected with them are situated immediately under that portion of the



brain that performs the mental functions. They are separated from it by a very thin plate of bone, and are very intimately connected with it by both blood vessels and numerous nerves. As most of the blood vessels in these chronic cases have for many years been congested to such an extent that they are from 20 to 100 times their normal diameter, the nerves of this neighborhood as well as other nerves connected with them, that have a great influence on the whole system, must be affected in the same proportion, and they in turn have marked effects on the function of the organs to which they are ultimately distributed.

That this is true is attested by the symptoms of every person who suffers from chronic catarrhal inflammation of the nasal passages, and prominent among these changes, is that of the disposition. It is a very frequent occurrence for such persons to exhibit great irritability, discontent and dissatisfaction, without apparent cause other than the nasal inflammation.

It is well known that a chronic complaint effecting any one of the extremities has the effect of producing an irritability of the disposition; how much more likely then will a long continued inflammation, situated immediately under the anterior portion of the brain produce a change in its function, the mind. Show me the man who does not have this inflammation and I will show you a man whose mind is normally clear.

Is there any person who is mentally affected and has healthy nasal passages?

There may be. I do not say that there is not, but I do say that I have not seen him.

Does it follow that every man who has a normally clear mind is also perfectly healthy in his nasal cavities?

Not any more than it follows that every man who passes in a rapid gait before your door is perfectly healthy, some one of them may be attacked by sickness or even may die before night.

Does it follow that every man affected by nasal inflammation must have some of the same mental disability that the professional and business men have who are addicted to excesses?

Not any more than that every man who has been shot through the body, the brain, or the heart will die, but most persons with nasal inflammation are so affected mentally, and most persons thus shot die therefrom.

Does it follow that any man may be affected seriously, mentally, by, apparently, a slight nasal inflammation?

Yes, just as some persons are killed by trifling accidents.

Are there not a large number of men who commit these excesses, apparently as healthy as are those who have not committed the excesses?

It is well to use the words "apparently healthy" in this question, for no such person can be healthy. It takes a longer time for these excesses to injure some than it does others: but every person, without

exception, is injured by them when their use is continued long enough.

Questions like these usually come from young men. I do not say young men as though it was a crime to be young, but because such inquires are the expressions of these inexperienced individuals. That men are apparently healthy while addicted to excesses, is to them a guarantee that they also may indulge in the same excesses with impunity. Their statement of these apparent facts, pointedly indicate that they want a good excuse to continue habits that at the present time are a pleasure only.

Who hears of these men after they have been broken down from the result of excesses? Perhaps not more than one in fifty of them are known to the public, yet this one, in all probability, has done more harm, in one month, to young men by his pernicious example and his ability to appear uninjured by his excesses, than he can correct by his daily regrets expressed during the last few years of his wretched life. It is the active, the apparently healthy, that are heard and seen; they are pointed to as proof of the harmlessness of the excesses; the mentally and physically wrecked ones are out of popular sight and hearing.



## CHAPTER X.

### TOBACCO ; ITS MENTAL AND PHYSICAL EFFECTS.

*1st. Tobacco produces an exhilarating effect on those individuals only who have acquired the tobacco habit.*

The early effects of tobacco are usually those of a nauseant and depressant to a marked degree. At this stage there is no exhilarating effect produced, such as would induce the consumer to continue its use. In a few weeks, both the narcotic and exhilarating effects begin to be experienced to that degree that its nauseant effects can be tolerated. Secondary effects of tobacco begin with this toleration and manifest themselves by mental phenomena and physical symptoms. By the latter is meant, the congestion and sequent enlargement of the blood vessels, and relaxation of all the tissues with which the tobacco comes in contact, which effect is the result of the local action of tobacco on the sympathetic nerves of the mucous membrane of the pharyngeal, pharyngo-nasal cavities and the larynx. The mental phenomena, which are under consideration, are experienced after a period of abstinence, longer in the beginner and shorter in the old consumer. It is manifested by symptoms of unrest, dissatisfaction, forgetfulness, impatience, disquietude, irritability and other evidences of an unhappy condition of the mind. The victim being un-

pleasantly aware that he lacks something, something that will bring him again toward his usual mental quietude. The relief from this mental unrest is called exhilaration by him, for much the same reason that the habitual drinker of whisky calls his morning dram a tonic. While both the tobacco and the whisky may bring their victims toward their usual condition, it is hardly necessary to say that the normal condition is not reached by either of them, for if it were so, evidently the discontinuation of either habit would not be accompanied by such mental and nervous disquietude.

I presume no one will say that the boy suffering from the nausea occasioned by too rapidly smoking his first cigar, enjoys its effects; nor will he say that his 50th or 100th cigar yields him any enjoyment, beyond the pleasure afforded by the knowledge, that he has at last become so far habituated to its effects, that he can perform the act that raises him all the way to manhood, without becoming sick at the stomach. As yet the sympathetic nerves have not become sufficiently impressed to experience the exhilarating effect of the narcotic, showing that it is those only, whose nervous system has become perverted by its effects, that experience this exhilaration. Perversion and exhilaration always maintain due relation to each other; the greater the perversion, the greater the exhilaration.

*2nd. The pleasurable sensation arising from the use of tobacco is not experienced except during the time it is depressing the system.*

This proposition is not in accordance with views expressed by either its opponents or friends, but it is abundantly proven by the fact that a full meal, or spirituous drinks, or exposure to out-door air, or recovery from sickness, increases the desire for tobacco, by increasing the ability to tolerate its effects.

My own experience in using tobacco—during a period of fifteen years—was, that I, many times, smoked until I lost all desire and taste for food. I frequently would have abstained from eating, had I not known, from past experience, that after the meal I could again enjoy my pipe. I ate, not because of hunger, but because the food relieved me of a semi-conscious exhaustion, not such as would result from an empty stomach, as I had not fasted, but a nervous exhaustion; relieved of this exhaustion by food, I could again resume my pipe and again enjoy its depressing effects.

There are other conditions of the system that show as plainly as what has already been cited, that tobacco is a depressor of the nervous energies. These are nausea, hunger, sickness and excessive grief. These conditions annul desire for the narcotic by rendering the system too weak to tolerate its depressing effects. In other words, agencies that raise the tone of the system, so that tobacco has the opportunity, as it were, to lower it, increases the tobacco appetite, by increas-

ing its ability to tolerate its depressing effects, and agencies that lower the physical energy so low that they leave no room for tobacco to lower it without causing nausea, decrease its toleration and desire for it at the same time.

It is thus seen that the system must be in a more or less vigorous condition to allow the use of tobacco, plainly proving that it is a depressor of the system, and it as plainly follows that it is while the depressing process is going on, that the pleasurable or exhilarating sensation is experienced.

*3rd. It is quite questionable whether the exhilaration following the use of tobacco, causes the consumer of it to enjoy life to a greater degree, than those who do not use it.*

The vehement opponents of the use of tobacco denounce it as a poison, and not only an originator of many functional disorders, such as neuralgia, anæsthesia, hyperæsthesia, diminished physical energy, etc., but some of the most dreaded of organic diseases, such as amaurosis, consumption, cancer, insanity, etc., they base their argument on the continual presence of functional disturbances. On the other hand, its friends consider it a harmless luxury, one that soothes irritated nerves, clears and sharpens the exhausted intellect, fills an indefinable vacancy, produces a satisfied and calm condition of the mind, dispels loneliness, relieves weariness and induces repose. They assume that its ill effects are always transitory and that no organic lesions are ever observable. On this they

base their defense. While I am certain that tobacco assists in the maintenance of many functional disturbances, I do not agree with its opponents that it usually acts as a poison to those who are habituated to its effects, or that it can of itself cause cancer, amaurosis, consumption or insanity, nor do I agree with its friends that it is a harmless luxury. It does not soothe irritated nerves, until its secondary effects have first irritated them. It would, of course, be absurd to say that it soothes unirritated nerves. It cannot clear and sharpen the exhausted intellect, until its secondary effects have first be-clouded, dulled and exhausted the intellect. It cannot fill an indefinable vacancy until its secondary effects have first caused this vacancy. It cannot induce a calm and satisfied condition of the mind, until its secondary effects have first produced a restless and unsatisfied condition of the mind. It cannot dispel loneliness until its secondary effects have first occasioned loneliness. It cannot relieve weariness until its secondary effects have first caused weariness, nor can it induce repose until its secondary effects have caused sleeplessness. Does the novice who has just smoked his first cigar, say that it soothes his nerves, clears and sharpens his intellect, satisfies and calms his mind, or induces repose? Even if his nerves were irritated, his intellect dull and exhausted, his mind restless, his eye sleepless, would this cigar give him the least relief? I presume my readers will not require answers to these questions.

If tobacco produces no effect that will induce the novice to continue its use, if it must have an habitual consumer on whom to produce its exhilaration by annulling its own secondary effects; if it must depress the system to relieve nerves that it has irritated, calm and satisfy a mind that it has made restless and unsatisfied, drive away a loneliness that its previous use has occasioned, is not this proof positive that this narcotic relieves its victims from nothing, save from its own effects? It also as plainly proves that until the victim is suffering from the secondary effects of tobacco, it produces no exhilaration, it has no relieving virtue. Does the victim smoke or chew, because he is restless mentally or physically? Tobacco caused the restlessness, the relief from which he calls exhilaration. Does he smoke or chew because his throat is dry? Tobacco occasioned the dryness, and so with every unpleasant sensation from which he asks tobacco to relieve him.

As tobacco must first depress the system, irritate the nerves, be-cloud the intellect and make the mind restless before it produces its exhilarating effects, what evidence have we beyond the assertion of the victim, whose nerves have been perverted, that this exhilaration causes greater enjoyment of life than he would have experienced if he had not been habituated to its use? Is the consumer of the narcotic, who is fully under its influence, in a fit condition mentally, to judge whether or not he enjoys life better in consequence of its use? If his sensibilities are pervert-



ed, is not his judgment, with respect to these sensibilities also perverted? Proof, conclusive, of the judgment being perverted, is found in the fact that ninety-nine hundredths of the victims are unaware of the hold that this agent has upon them, until they undertake to discontinue its use, then, to their utter surprise, they find that they are so firmly bound, mentally and physically, that it is almost impossible to gain the mastery over the habit.

My personal experience warrants me in making the assertion, that every tobacco consumer is the victim of a deception. They imagine that exhilaration follows the use of tobacco, when it is only the sensation of relief from the tobacco's secondary effects; but to attempt to make old smokers or chewers admit that their pleasurable feelings are derived from the relief of these secondary effects, is a pure waste of time, as they are totally unconscious of any secondary effects. They will readily acknowledge, that if curtailed of their usual supply, they soon experience a multitude of very disagreeable symptoms, indeed these are so unbearable as to make life a burden, yet there are few who will admit that these sensations are the result of the use of tobacco. Now, to get rid of this unhappy condition, they betake themselves to their nerve perverting solace; thus, while they are dispelling their unpleasant feelings they are experiencing pleasurable sensations, proving correct what I have said, namely, that to the relief of the secondary effects, is due their exhilaration.

In some respects they resemble a Chinese Lady of rank whose feet, since her childhood, have been cramped by diminutive shoes. As soon as her shoes are removed she is in pain, and is entirely unable to walk, but so soon as she puts on her small shoes, her pain is abated and she can again move about with her usual activity.

Probably the best evidence of a devotee's unconsciousness of being held in subjugation, is the replies to friends who are expostulating with him concerning the use of tobacco. One of them will say, with a beningn smile on his countenance, "did you but know the pleasure this affords, you also would use it. I tell you I would rather give up the tenth of this life, than discontinue it." Proving that he believes that every person that does not use tobacco is as unhappy as he is when deprived of it; also proving that he does not perceive that the relief following the additional use of tobacco does not equal the passive, everyday sensations of the healthy non-consumer.

I have been in the condition in which this victim now is, have made just such expressions, and now know the reason why he is so egregiously deceived. He speaks as though there was *no difference* between his nervous system and a non-consumer's nervous system. He has forgotten the effects of the tobacco when he first commenced its use; he has forgotten how the taste and sensation it produced compelled him to be *surprised* that others



should use it, even doubting their veracity when they affirmed that they enjoyed it, and the *only* reason why he continued its use at the time, was either because he was in company where it was used, and chewed or smoked because they chewed or smoked, or because he thought it seemed manly to do so. This is the time that he should have compared his nervous system, with the nervous system of his extrapolating friend, for both systems were then in about the same condition; but to make a comparison at a time when one system is in its natural condition and the other in a condition that compels the victim to chew or smoke to keep himself *compos mentis*, only demonstrates the peculiar logic or philosophy that comes from viewing things through "tobacco spectacles."

With equal correctness could the victim of six and eight glasses of whisky a day, say to a young lady "Mary Jane, could you realize the enjoyment of the effect of these glasses of whisky, you also would ~~use it~~, I would not exchange a tenth interest in life for my social glass." This victim would be a shaking wreck without his four fingers of whisky and the tobacco-victim would be a trembling, lost, forgetful, cross fellow, unless he got his quid, pipe or cigar, yet both will, as I have said, deny having any secondary symptoms from these enslaving agents, and both are deceived into the belief that they enjoy life to a much greater degree in consequence of their use.

Almost every one of the uninitiated, seeing the earnest and candid manner in which assertions concerning the pleasant effects of tobacco are made, will believe that it is really a pleasure-giving substance. That they are very greatly mistaken may be proved by their taking some of the weed in their mouth, or by smoking it until its effects are appreciated. They will not call the deathly sickness, which will soon be experienced, pleasant. If they do not feel like invoking a curse on the one recommending its use to them, it is because they are too weak to do so.

*4th. The congestion occasioned by the action of tobacco on the mucous membrane of the superior portion of the respiratory tract, resembles in many respects, the congestion resulting from the effects of a cold, and like effects of a cold, some of its effects are transitory and some are permanent.*

It is not necessary to detail all the transitory effects of tobacco. Suffice it to say that they consist in part of the nausea of the novice ; after toleration has been established, of nervous trembling of the hands, of headache, of heartburn, of hiccough, of perverted taste, of dizziness, of dyspepsia, of constipation, of palpitation of the heart, of dry throat and nostrils, of sore tongue, cheeks and lips, offensive breath, etc. The permanent effects consist of the local relaxation and congestion of the mucous membrane of the superior portion of the respiratory tract, and of

the results following and originating from this relaxation and congestion *per se*.

The question may be asked, how can a relaxation and congestion, arising from the effects of tobacco, be distinguished from a similar condition arising from a cold? It is rather a difficult matter to distinguish between the effects of the moderate use of tobacco and the effects of a cold, but it is not difficult to select, judging by the degree of congestion, the immoderate consumer of this narcotic.

The female of ordinarily good health who has had one continuous cold from her girlhood to her fortieth year, and the consumer of tobacco of ordinarily good health, who, from his fifteenth to his fiftieth year has used this narcotic moderately, have equally diseased nasal and pharyngo-nasal cavities, that is if both are of the same temperament. If the female has black hair and the tobacco victim light hair, his nasal cavities will be in a much greater inflamed condition, than her's, and *vice versa*. If a light-haired boy begins at the age of fifteen to use tobacco inordinately and continues to use it excessively, the resulting congestion will be so severe as to ultimately involve other important organs; the brain, stomach, heart and the lungs are liable to be implicated to such an extent that life will be shortened many years, and, after death, mortification will begin first in the nasal cavities.

There is another evidence of the permanent effect of tobacco not unfrequently observed, and in this

phase too, it resembles the effects of a cold. I allude to the effect on the mind. The catarrhal female patient of thirty, and the tobacco victim of forty, are both equally less fitted for the performance of mental exertion than they would have been, had their respiratory tracts not been maintained for this length of time in a diseased condition. Nor, so far as is known to me, can the mucous lining of either of these tracts be restored, by any course of hygienic measures, or any method of local or constitutional treatment, to its normal condition. This being the case, it effectually disposes of the assumption of the friends of tobacco, that its effects are transitory and that no organic lesions follow its use.

If the victim of the tobacco habit uses it inordinately, and is at the same time in a weak condition physically, the result of excessive catarrhal inflammation of his nasal cavities, his eyesight, his hearing and the functions of his brain will be thereby impaired. Catarrhal patients, not uncommonly, find it difficult, if not impossible to continue even for a comparatively short period of time, any train of thought requiring unusual mental exertion; their mind will involuntarily revert to irrelevant subjects, but with the tobacco victim, who is also a catarrhal patient, this wavering condition of the mind is so frequent and so persistent, that he soon becomes so wearied in his efforts to keep his mind on his subject, that he gives up in despair and betakes himself to his narcotic solace, allowing his mind to follow its dreamy, objectless

course. Strange as it may appear to one not subject to the influence of tobacco, this individual calls this acquired condition of his mental being, happiness, and the agent that begets this state of mind, a luxury.

*5th. The local effect of tobacco on the mucous membrane of the nose, throat and ears, is as predisposing to catarrhal disease, as is inefficient and insufficient clothing in the case of females.*

I do not propose, while attempting to prove the correctness of the above proposition, to demonstrate at this time, that catarrhal inflammation, in the case of females, is induced by an improper kind and amount of clothing, but to show that the local effect of tobacco is as efficient in preparing the mucous membrane to take on catarrhal disease, as is deficient clothing in females in exposing them to colds, so that contracted catarrhal inflammation, as a rule, is originated from colds alone. Female patients clothe themselves in such an insufficient manner, that it is not at all difficult to account for their susceptibility to take cold on even slight exposure. But with males, the same excuse cannot be offered as it is well known, that as a class, they are so much more warmly clad, they are not liable to be injured from exposure to ordinary weather, therefore, they should be much more free from catarrhal disease than females, but, as will shortly be shown, males are more frequently sufferers from catarrhal inflammation of the nose, throat and ears than are

females, although they are less well protected by clothing.

TABLE.—NUMBER OF PATIENTS TREATED FROM 1866 TO 1881, INCLUSIVE.

AGES.	TOTAL.		TOBACCO USED BY MALES.	
	Males.	Females.	Used.	Not Used.
4 mo. to 1 year .....	17	18		
1 year to 3 years .....	28	27		
3 years to 5 " .....	38	35		
5 " 8 " .....	51	44		
8 " 10 " .....	53	65		
10 " 15 " .....	88	172	28	60
15 " 20 " .....	123	268	59	64
20 " 30 " .....	369	649	268	101
30 " 40 " .....	740	307	621	119
40 " 50 " .....	248	54	210	38
50 " 60 " .....	96	8	73	23
60 " 70 " .....	38	2	28	10
70 " 80 " .....	5	1	2	3
80 " 90 " .....	2	0	0	2
	1896	1650	1289	420
	3546		1709	

From 1866 to 1881 inclusive, I treated 3,546 patients for catarrhal disease of the nose, throat and ears. It will be seen that it is at the time of life that patients are mostly under the influence of tobacco and are experiencing the injuries from insufficient clothing, that they are the greatest sufferers from catarrhal inflammation. Up to the 10th. year, both sexes being about equally exposed and protected, are equally affected, there being 187 boys and 189 girls.

From the 10th. to the 15th. year, the boys, although more exposed to inclement weather than they had been heretofore, are more warmly clad than for-



merly. They are now wearing woolen underclothes, woolen neck wraps, boots, overcoats, warm caps or hats, etc., while the girls of equal age, although much the weaker sex, and nearly as much exposed to colds as they were at an earlier age, are yet more thinly clad than they were formerly, especially during the season of social gatherings, lectures, operas and theatres. Between these ages, 88 boys and 172 girls were treated, 2 of the latter to 1 of the former. Although the boys could have been but a very few years "boosting" themselves into manhood by using tobacco, yet in this short time, this narcotic has produced one-fourth of the number of cases treated.

From the 15th to the 30th year, the influences of tobacco and of deficient clothing are still more marked. Tobacco, by this time, has produced a greater degree of relaxation and congestion in the mucous membrane, thus preparing it to be the more easily affected by slight changes of the weather. The females of this period of life are still more thinly clad, although more liable to the interruption of the physiological functions of their organism from effects of cold, their being 492 males to 719 females. Of the 492 male patients 165 did not use tobacco, colds alone being the cause of their catarrhal complaint, leaving 327 persons who used tobacco, and who would not have been so severely affected with colds as to have been patients, had it not been for the effect of this narcotic.

From the 30th to the 40th year, there is a very remarkable change in the relative proportion of the



sexes affected by catarrhal diseases. Instead of the females being greatly in the majority, as they have been from the tenth year, their minority is even a greater contrast, there being 740 males to 307 females. I account for this remarkable transfer of the majority to the male column in this way; the females have by this time changed their condition in life, they are not so much exposed to sudden changes of temperature, having been married, and besides, they have learned, from past experience, that they must clothe themselves more warmly, than was their custom in earlier life, while many of those worst affected, have died before reaching this age.

With the male portion of this list, tobacco wielded a still greater health injuring influence: for of the 740 patients treated, 621 were addicted to the tobacco habit. The number who owed their catarrh to colds alone was 119, or about one-sixth of the whole number.

In reviewing the relative proportion of patients who used tobacco, as compared with those who did not use it, it will be seen that the bad effects increase during the entire time it is used. From the 10th to the 15th year, only a little more than one-fourth of the whole number treated were consumers of tobacco; from the 15th to the 20th year, the proportion increased to a little over one-half; from the 20th to the 30th year, the proportion grew to two-thirds; while from the 30th to the 40th year, more than six-sevenths of the whole number required medical treatment be-

cause of the injurious effects of this narcotic. Not only was this class made patients for the time being, but the mucous membrane of the respiratory tract was so seriously affected, as to require from three to ten years for the mucous membrane, in the younger patients, to be restored to so nearly its normal condition that they would be unconscious of the existence of nasal passages, or of a throat. These figures plainly show that tobacco so *prepares* the mucous membrane, as to cause it to become affected on the slightest exposure. It shows also, that what insufficient clothing does for females, in exposing them to the effects of sudden and great changes of temperature, tobacco does for its victims in preparing the mucous membrane to take cold, both tobacco and deficient clothing tending to induce catarrhal inflammation. Consequently it is as entirely useless to treat a patient who continues to use tobacco, as it is to treat a female who persists in refusing to protect herself with a sufficient amount of the proper kind of clothing.

*6th. The local effect of tobacco on the mucous membrane, causes a more permanent relaxation and congestion than any known agent.*

My attention was first directed to the relaxing and congesting influence of tobacco in 1862. I was at that time, treating a patient who was a great sufferer from nasal and aural catarrh, and who smoked and chewed excessively. He frequently expressed himself as satisfied that he was injuring himself by this

narcotic, but the habit had such a hold on him that he made no effort to discontinue it, nor did I, at the time, think the tobacco was injuring him to the extent that I now know that it was. He was under my care for about three months, and died. I made a very careful post-mortem examination of the nasal and pharyngo-nasal cavities, and found the mucous membrane in an excessively congested condition. It was œdematous, and of a black-brown color showing that mortification had begun before death. At the same time I made two other post-mortem examinations. In one, the mucous membrane of the nasal passages was nearly of the normal color. In the other the nasal passages were black-red, but not of so deep a dark color as were those of my patient. On the same day I chanced to meet the physician who had treated the last patient. I made remarks to him concerning the peculiarities revealed by the examination. He stated that his patient was also a habitual smoker. I then learned from the physician, and attendant on the patient, whose nasal passages were found in a comparatively normal condition, that he had never been addicted to the use of tobacco in any form. This determined me to make an investigation as to the relationship existing between the smoking and chewing of tobacco and the dark appearance of the nasal mucous membrane.

For the purpose of investigating this, with other allied subjects, I made, during the succeeding three years, not less than twenty other post-mortem examinations of a similar nature, and, judging from the

state of the mucous membrane of the nasal passages, I successfully selected, in every instance, each one of the bodies, who during life had been habitual smokers, the mucous membrane of such, always being of a much darker color than that of the non-smoker.

During the past sixteen years, my opportunities for making post-mortem examinations have been exceedingly limited, probably about twenty-five being made during the time. But in each instance until the past winter, (1878) when I examined two heads, one that of a boy, whose nasal passages were darker red than is usually seen during life; the other that of an adult negro, who had used tobacco inordinately, and whose nasal passages were black-brown. The boy did not use it, evidently showing that the effect of tobacco is to produce so permanent a congestion, that it amounts to a paresis of the parts. I will now ask, is it true that the effects of tobacco are transitory? Is it true that it leaves no organic lesion?

*7th. As tobacco depresses the system while it is producing its pleasurable sensation, and as it prepares the mucous membrane (by causing a more permanent, relaxation and congestion than any known agent) to take on catarrhal inflammation from even slight exposures to cold, it should require no further evidence to show that its use ought to be discontinued by every catarrhal patient. The only question remaining to be*

*answered is, Shall its use be discontinued at once, or shall the victim "taper off," in his endeavor to become master of himself?*

A peculiarity of the effect of tobacco upon the system, is that the victim is not aware of the hold it has on him. As he throws away the cigar or spits out the quid, he will not for a moment acknowledge that he is not master of his desire and appetite. It seems but a trivial matter to him to break the habit nor does he know what hold it has on him until he makes the attempt to discontinue its use. Then to his surprise, what he thought could be done with but little self-denial, demands his utmost resolution, nor is the desire overcome without at least a six months' ordeal, the first three weeks of which is called a "twenty days' horror," by many of the victims.

I will give the following dialogue and partial history of a patient's tribulations in endeavoring to overcome the tobacco habit. Although the questions and answers are nearly a repetition of one another, yet they contain some points of interest and some of instruction.

QUESTION.—Capt. W. W. A. Doctor, how about this tobacco; can't I get over this throat trouble unless I stop both chewing and smoking?

ANSWER.—I stated at the time you made your first visit, that if you discontinued the use of tobacco, your throat would improve to a considerable degree without any other than constitutional treatment, while with its continued use, all treatment would fail but to



merely allay prominent symptoms, and that these effects would last but a short time after the discontinuance of the local application.

All right, sir: I will stop it. It will be no trouble to do that.

He came back at the appointed time—it being the fourth day during which he had not used tobacco—was treated, and had taken a few steps toward the door, when he returned and said: "Did you say that I ought to stop the use of tobacco entirely?"—emphasizing the last word.

To an affirmative reply he said, "All right, sir; I guess I will make it."

A blind man could have seen from his questions, that this habit, which he thought could so readily be broken, had a much stronger hold on him than he had realized. In about one week after he said, with a slight hesitancy, but with a serious countenance: "Did I understand you to say that it was positively required that I should not use any tobacco at all?"

He received an affirmative answer, and replied "All right, sir; I guess I can get along without it; I have made up my mind to make the trial, but" (with a smile on his face) "it is a fearful trial on one's resolution, sir. About half the time I do not know what I am about; I feel as if I wanted something; I cannot read the papers, I cannot stay at my office, and cannot be satisfied at home, because I have my business to attend to. In short I feel miserable."

About a week afterward he said "My throat feels

pretty well now. Don't you think I can take a small chew, just a little nibble? I do not think it would do me any harm. If I cannot do that, can't I smoke a little at home? You may be sure that my wife will not let me smoke too much."

The reply was, that as his throat had been so well during the last few days, if he continued to abstain, all the disagreeable symptoms (they were frequent spasms of the glottis at night after he had retired) would soon cease, also that he would soon lose the intense desire for tobacco.

He replied "All right, I want to get this throat well." Ten days afterward, having finished the local treatments of his throat I remarked to him that he had missed several appointments, to which he replied "Yes sir, I know it; I thought it would be an easy matter to stop the use of tobacco. The fact is, I did not then know whether I could or could not stop, until I began to make the trial. I then learned that the habit was a much stronger one than I had anticipated, but I did not touch it in any form until last Monday. On that day I was offered a good cigar—a good cigar to a hungry man like me, is a very great temptation I can tell you—I smoked a part of it, my throat becoming a little dry from it, but in the morning it was all right again. I expected to have come here at the usual time, but was offered another good cigar, and the temptation was too great to be resisted, and I smoked the whole of it. My throat did not feel dry immediately, but during the after-



noon my clerk offered me a chew which I took. After chewing the tobacco I felt a slight sticking pain in the left side of my throat; which grew rapidly more severe for a time, but next day I scarcely felt it, I thought, however, that I would stay away until all pain from the effects of the tobacco had left me, before I called to see you again."

He was conscious of great improvement while not using the tobacco. He was willing to agree to any arrangement for the gradual discontinuance of its use, but the total abstinence plan he did not wish to continue. As he thought chewing did not injure his throat as much as smoking, he proposed to take a small chew, not oftener than from three to five times a day. He thought this would be a great improvement on his old habit, as he was accustomed to both chew and smoke. The result of the trial was not very satisfactory. He frequently took a chew in violation of his promise as he said "before he thought of it."

His next plan, was to separate his tobacco into small parcels containing a very small chew. Each parcel was to be taken at a stated time—such time being marked on the wrapper. This was productive of better results, at least for six or seven weeks.

At the end of this period, he contracted a cold, which seriously affected him. While in this condition it was proposed that he discontinue the use of tobacco for three weeks, and if there was a continual

improvement, it was hoped the desire for tobacco would decrease, and he could be induced to a further discontinuance for at least four or five weeks, but he could not be persuaded to abstain but two weeks longer.

During this time he was compelled to stay at home. At the end of this period his improvement was very satisfactory. Fortunately he had gained such control over his desire for tobacco as to enable him to abstain for a longer period. In four months time his desire for tobacco was so much lessened, and the beneficial effects so manifest, having gained eighteen pounds during the time, that he determined never to use it again. He kept his promise, made in 1868, until 1876; when he recommenced using tobacco. He had entirely recovered from his throat trouble, but in thirteen months time, all his former symptoms returned. He was treated a few times receiving relief only. In the Spring of 1878 he was taken seriously ill, which resulted in death.

Various articles have been named and tried as substitutes for tobacco, to enable the victim to overcome the habit, but the most successful method, is its discontinuation at once, and suffer for a few weeks, the effect of the abrupt abstinence. The peculiar nervous sensation following the total abstinence is somewhat ameliorated by taking  $\frac{1}{4}$  of a grain of sulph. quinine, in powder, on the tongue, then chewing a small piece of fat yellow pine. Neither the pine nor

the quinine are antidotes, the latter is a tonic to the nerves, the former affords employment for the jaws.

Many patients are thus enabled to break off the habit without a great deal of inconvenience; others abstain for a time, then recommence as soon as their catarrhal affection has ceased to be a cause of anxiety.

**SANDFORD'S AND WEI DE MEYER'S CATARRH "CURES" (?)  
FOR CURING THE TOBACCO HABIT.**

A patient of mine gave me the following history of the way he was cured of smoking tobacco.

"I had used Sandford's Radical Cure(?) for several weeks. One day after I used it, my nose felt hard and dry and it bleed some. It felt as though a cigar would make it run a little, as it had done before, but when I got half of the cigar smoked I felt very sick at the stomach. I thought the cigar rather strong and threw it away. Next day the next cigar served me the same way. Did not smoke for several days. As "Sandford's Cure" was making me worse, I tried Wei De Meyer's. This, like Sandford's, made me feel a little better at first, but it soon had the same effect as the other, that is, made my nose sore and bleed. About this time I smoked some cigaretts, and was again made so sick at the stomach, that I threw up my dinner. I had never before been sick from the use of tobacco and believe that the "cures" was the cause of the sickness."

The "cures" were not the cause of the sick stomach but were the cause of the increased inflammation in the nasal passages and throat, this was the cause of the sickness.

It is not at all uncommon for victims of these "cures" to relate experiences like the above.

## CHAPTER XI.

### PHYSICAL EXERCISE.

The neglect of physical exercise may many times assist in maintaining a general debility of the system, and a torpid condition of the bowels. To many patients, out-door exercise, a life in the air and sunlight, is not only beneficial, but absolutely essential to health. It should not, however, be taken before breakfast nor at night. Most lady patients leading a quiet life, will find that half an hour's walk after breakfast, will greatly aid digestion. Horseback riding is a healthful exercise, and may be indulged in at any time during the day, providing the weather is dry.

A course of gymnastic exercises will greatly benefit all who lead a sedentary or quiet in-door life. I have known patients, who were not able to leave their room during the entire winter, to be greatly benefited by performing such prescribed exercises, as were suited to their physical condition, with dumbbells, pullies, rubber bands, swing, etc. Such recreation will frequently induce a desire to sleep when other means fail.

It is a well known fact that exercise develops those muscles of the body that are brought into

action. This is observed in the youth's arm, after a few weeks exercise with the dumb-bells or Indian-club, and in the blacksmith's arm. Not only does exercise develope these few muscles, but every organ of the body and their function is strengthened *pari passu*.

While it is important that the kinds of physical exercises should be of such of a nature that they are not unpleasant or disagreeable, yet there are conditions of the mind, brought on by the diseased condition of the head, that may incline the patient to think that *every* kind of exercise is unpleasant; of course in such a case, the patient's judgement cannot be taken as a guide, and he *must* follow the advice of his friends. The reason that fishing, ball-playing, hunting, dancing and alike exercises are so beneficial, both to body and mind of the catarrhal patient, when not carried to excess, is that the excitement charms him into forgetfulness, and his muscles are made to perform two and three times the usual amount of labor, at the same time his lungs, heart, stomach, bowels etc. are made to take part in this strength giving exercise.

I have known patients, the tendency of whose catarrhal complaint was to make them gloomy and down-hearted, give way to their ever present tired and weary condition, resisting every advice to the taking of exercise, allowing themselves to drift slowly to the grave, in the face of every treatment, both local and constitutional. In cases of this kind *sys-*

*tematic massage* is very useful, as it removes the wearied sensation that prevades the whole body, and to a certain extent takes the place of bodily exercise.

Calisthenic exercises, or exercises known by this name, as practiced in our common schools, are gentle movements of the body, the arms principally, but they are of little value to the pupil, save that they instruct them in the manner of holding the body in a proper or graceful position. Systematic movements, made with *energy*, using various kinds of implements, such as parallel bars, trapeze, horizontal ladders and bars, dumb-bells, Indian clubs, wooden horses etc., all under the control of a competent teacher, are a most useful means of developing, in a very short time, all the animal vigor of the body. But to derive the greatest benefit from such a course, it should be taken regularly for several consecutive months.

I am greatly in favor of well conducted gymnasiums for *both* sexes, but institutions of this kind that allow the young of either sex to undertake the most difficult and dangerous acts, in absence of a qualified teacher, should be shunned by all classes. A gymnasium that allows boys, or "young lords" to "show off," and in so doing maim or kill themselves, as has been done in this city, is but little short of a nuisance.

There is much more need of gymnasiums for females than for males, as the latter sex have more frequent opportunities for physical exercise than the

former. The sedentary life that tyrant fashion drives girls from the 10th to the 17th year to lead, may be, to a great extent, counteracted by a several months course in a gymnasium, followed up year after year.

These exercises may be taken at any time of the day, except before breakfast, or during the first hour after dinner.

**WALKING, GOOD EXERCISE FOR YOUNG MEN AND WOMEN.**

Young men and women, who are physically able, should walk to and from their place of business each day, provided they do not walk over half a mile. School teachers also, male and female, should take sufficient exercise that would amount to walking half a mile each morning.

I do not think that taking much exercise of any kind, when one is in an exhausted condition, is beneficial.



## CHAPTER XII.

### DISPOSITION OF THE MIND.

Catarrhal inflammation of the nasal passages invariably commences in the immediate neighborhood of the superior turbinated processes. From this locality it extends, by continuity of structure, and by vascular and nervous connections, to other parts adjacent and then in succession to remoter parts; that is, the middle ear does not become diseased until, after the mucous membrane lining the Eustachian tube has become affected by extension of the inflammation from the nasal cavities, nor in the larynx until, it has affected the pharyngo-nasal cavity and the fauces. In like manner it extends to the sphenoidal and ethmoidal cavities, and to the frontal sinus.

These cavities and sinuses are situated immediately under that portion of the brain which performs the mental functions. They are separated from it by a very thin plate of bone, but are intimately connected with it by both blood-vessels and nerves. As the blood-vessels in chronic cases have, for many years, been congested to such a degree that they are twenty, thirty or forty times their normal diameter, the nerves accompanying these vessels, as well as other adjacent nerves, having a controlling influence on the whole economy, must be affected in some degree, if

not in the same proportion. It would naturally be expected that they, in turn, would effect changes in the functions of the organs over which they are ultimately distributed.

That this is true is attested by the symptoms of every person who suffers from chronic catarrh, and prominent among these is the change in disposition. It is a very frequent occurrence for such patients to exhibit great irritability, discontent and dissatisfaction, without apparent cause, or at least without a cause that is equivalent to the degree of change in the mind.

It is not usually considered the province of the physician to give advice, concerning the necessity of controlling the disposition of a patient's mind, or to give warning of the injury that may result from allowing ill-temper to have full sway ; but experience has frequently proved to me the necessity of such control, as the recovery of those patients who do not curb their ill-nature is retarded.

It is well known that a chronic disease, affecting any one of the extremities, or various organs of the trunk, has the effect of producing an irritability of the disposition. How much more likely then will a long continued inflammation, situated immediately under the anterior portion of the brain, produce a change in the functions of that organ. It does not follow that the pain of a man's corns will be increased by indulging his ill-temper, yet, when irritability of the disposition does assist in maintaining a hyper-

æmic condition of the inflamed parts, then most certainly, such indulgence should be curbed.

There are many persons whose ill-temper results solely from the distress occasioned by the catarrhal condition of their nasal passages, and to whom the injunction, "do not return an angry reply," is needed; especially is this advice necessary when their anger is so violent as to cause their face—usually pale—to be reddened by passion.

The integument of the face is reddened by the afflux and retention of blood in the capillaries; what then must be the condition of the congested capillaries of the mucous membrane lining the nasal, ethmoidal and sphenoidal cavities, as also of the blood-vessels within the cranium. Certainly this forced injection of the blood-vessels, if repeated often, must have an injurious effect on their walls, which are already much reduced in thickness, and weakend in their power to contract, and it must render them more liable to remain in a congested condition.

Many patients find it almost impossible to return a kind, or even civil reply to any inquiry, especially if made by a kind and forbearing friend. It would seem, the greater the forbearance on the part of the friend, the less they fear to offend his feelings, and the less restraint they exercise on their ill-temper; while to the comparative stranger, they will return an answer in every way proper and kind, showing evidently that they *can* control their temper if they *desire to do so*. One patient informed me that he pre-

ferred boarding away from home, although his relatives were kind to him, because of the annoyance he experienced on being interrogated by his mother concerning his health. Many patients are conscious of the existence of this great fault, and acknowledge that they ought to control their temper. This they most certainly should do, as it is a flagrant violation of the laws of affection, and an abuse of the feelings of those who have a right to expect a reply in return, commensurate with the many kind offices performed and the almost agonizing anxiety on their account, both day and night.

The more often a patient allows his temper to get the better of him, the more liable is he to be irritable, and if this indulgence is continued, a condition of mind will be engendered, so resembling insanity, that his relatives or friends will believe that he is really becoming insane. On the other hand, a kind reply, even to a needless question, most certainly tends to develop a pleasant disposition, besides being a great satisfaction to indulgent friends. One kind answer predisposes to an other kind answer, and prevents irritation of the disposition.

That the indulgence of anger does increase intracranial congestion, is evidenced by an increase of headache, increased tinnitus aurium, by vertigo and nausea, and other symptoms indicating excessive blood pressure within the cranium upon patients becoming angry.

The following cases are illustrations of this important fact:

Mr. H. of Kansas, informs me that his son had, what seemed to be, a slight attack of cerebro-spinal meningitis; was in bed only about one week. On recovery he was observed to stagger as if under the influence of spirituous drink. After he had been out of bed about two weeks he was engaged in playing with two yoked calves. As he could not make the calves do his bidding, he became angry, and called very loudly to his sister for assistance, who was in the house, about two hundred yards distant; as she did not make her appearance, he called still louder, and grew exceedingly angry, objects around him became dim, and he fell to the ground. On the recovery of his consciousness, he walked, as well as he could, to the house. These facts were learned from him some months after their occurrence. His mother came to the conclusion, as she saw him walk into the door in a more than usual staggering gait, that he had exhausted himself with the calves. She also remembers that he was very pale and appeared much frightened. On her asking him if he had been hurt by the calves, he made no reply, but went to bed and slept for a few hours. On waking up, he then spoke and seemed to be much pleased at the recovery of his speech. He then related to them how greatly he was frightened at his inability to speak upon recovery of his consciousness, but which had not been noticed by them, as he went immediately to bed. In

about six weeks afterward he again became very angry, which *immediately* had the effect of bringing on a disability to pronounce certain words. A few weeks after the complete recovery from this attack, he related his experience with the calves.

This happened several years ago. Even at this time he is very careful to avoid becoming angry or excited, as this condition of mind always effects his speech to a more or less extent.

This gentleman has a daughter who is completely deaf from cerebro-spinal meningitis. It is noticable that at those times when she is excited by fear, but especially by anger, that her eyes, which have been affected with a slight strabismus since her recovery, become much more crossed, and on these occasions her toes seem to stick into the floor, so much so that while walking across the room, she is very liable to stumble.

Probably one of the most constant subjective symptoms of chronic catarrh of the nasal passages, is the *change* in the disposition of the mind, which, in my opinion, is the result of irritation arising from long continued inflammation located immediately under the anterior portion of the brain.

I cannot better demonstrate this *change*, than by adding the histories of other patients who have been under my care for several years for the treatment of their mental and physical condition. Of course these symptoms manifested themselves only during the first few months of treatment.



August 187— A. A girl of thirteen years of age. During the last three years she cries when brought into the parlor. If asked by any one of the family, whether she feels bad or has a head-ache, she bursts into tears, but makes no reply. This mental condition has prevented her from receiving instruction at school or at her home. She is small for her age; has always had trouble to keep her nose clean; uses from two to five handkerchiefs every day since she has been large enough to use a handkerchief; has paralysis agitans of the muscles of the left side of the neck and left arm; has complained of a tiredness of the right arm and hand; tonsils very much enlarged, which have been twice excised; permanent teeth much decayed; the auricle of each ear projects forward, a phenomenon that indicates that her ears have been affected to a considerable extent while quite young. A stream of muco-purulent secretion is seen flowing down from the naso-pharynx.

In the spring of 187—I treated a lad a little older than this girl, who exhibited symptoms very similar to those above mentioned.

In the summer of 187—I treated a gentleman—a lawyer by profession—who, when he first visited me, shed tears every time that he commenced relating his symptoms. He was exceedingly ashamed of his conduct, but could not help it. This condition of mind and a persistent sleeplessness were his most prominent subjective symptoms.



In 1867 I treated a little girl who frequently became so angry, that her face turned dark red. She acted, on these occasions, as though she was blind. She would start in the direction of a member of the family whom she desired to strike, and in going there would run against a table or chair or the stove and burn herself, which she did do several times. If the object she ran against was such that she could lift, she would grasp it and break it to pieces, and show other signs of most violent rage. On two occasions she acted as though she was in an epileptic seizure. On both of these occasions she stood still for about a quarter of a minute, and held her arms stretched out before her, with her fists tightly clenched, and every muscle of her face indicating spasmodic contraction of the severest kind; her teeth set; her lips drawn apart and her eyes staring wide open. Immediately after each of these seizures she dropped on the floor in an insensible condition. She was put to bed, and woke up in a half an hour feeling as well as usual.

A druggist of this city experienced a sensation of continual fear as soon as he left his house. He did not have courage enough to come to my office alone, and was, for several months, accompanied by a young man. Several times, when he was in the street, his sensation of fear was so great that he trembled, and was bathed in perspiration.

A gloomy condition of the mind should be resisted. The patient should resolutely determine to occupy himself with subjects that will take his thoughts off from the contemplation of his ailment. As the treatment of the local inflammation progresses toward a favorable termination, these disturbances of the mind will gradually disappear.

## CHAPTER XIII.

### THE EFFECTS OF PATENT MEDICINES ON PERSONS AFFLICTED WITH CHRONIC NASAL CATARRH.\*

There are many persons whose nasal, head, throat and chest troubles would be slight, had they refrained from using the so-called remedies for catarrh that are advertised in the newspapers. I am satisfied that little is known, by either the profession or the community, of the great injury done by these agents, especially in America.

During the last twelve years (1872) I have made it a practice to inquire of my patients concerning their efforts at alleviating their catarrhal troubles, and found that about 15 *per cent.* of them had not used any kind of a remedy; about 20 *per cent.* had been treated by physicians, and the remaining 65 *per cent.* resorted to patent remedies for catarrh.

The first class, as they may be called, did not, as a rule, appear as though they were severely afflicted, but few of them complained of very great physical suffering, nor did many of those under 35 years of age lay much stress on their mental suffering. None of their symptoms indicated that their attack was

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\* Read before the St. Louis Medical Society, Dec. 27th 1884.

acute, consequently their objective symptoms, such as accumulations of muco-pus, thickened mucous membrane, etc., were more marked than their slight subjective, symptoms indicated.

Those of the second class were more severely afflicted but still the majority of them complained more of physical than of mental discomfort.

#### THE EFFECT OF PATENT REMEDIES.

With the third class, the 65 *per cent.* who had resorted to patent cures for catarrh, these conditions were reversed. They complained far more of their mental than of their physical ailments and all of their symptoms were more severe than either of the other classes. They evidently had far more pain than the second class, but their mental afflictions were the occasion of so much greater solicitude than their physical sufferings, that the latter were made secondary. They complained of melancholy, loss of memory, dissatisfaction, and were not refreshed by sleep even when they could close their eyes. Many of them said that they felt more tired on rising from bed in the morning, than when they went to bed at night. A large percentage timidly intimated that a fear of becoming insane was often forced upon them by their own observations of the action of their mind. This was far more dreadful than their physical sufferings.

The male portion of this class suffered much more severely than those of the female portion who had

passed their 35th year of age. It is not difficult to account for this peculiarity. The females of this age had learned from experience to dress more in conformity with the laws of health, which, if it did not counter-act some of the injurious effects of the "cure," at least it did not increase them, while the males, as a rule, instead of endeavoring to conform as near as possible to the laws of health because of their illness, actually augmented their complaint by an over indulgence in the use of tobacco and stimulants. The disease, because of its being rapidly increased by the irritation of the "cure," seemed to incite them to an increased use of these two prime congestors\* to an extent far greater than formerly, in the hope of obviating some of their mental troubles.

My observations lead me to think that many of our inebriates come from this class; that is, from a class of invalids who are suffering mentally from nasal catarrh that is being rapidly increased by some cause. Their distress is so great, that it drives them to take *anything* that will give even partial relief.

For many years I have noticed that there is a limit to the use of tobacco by all catarrhal patients, but the limit is sooner reached by this class. As soon as the inflammation arrives at a certain stage of intensity, the result of a sudden increase of the disease from any cause, the pneumogastric nerve is easily affected,

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\* There is no such a word as "congestor" but there should be.

then a slight additional increase of the inflammation of the mucous membrane or a slight depression of the system occasioned by a little over indulgence in tobacco, will cause a reaction that will be felt in the stomach, resulting in qualmishness. Under these circumstances, tobacco, in any shape cannot be tolerated.\*

Unfortunately, stimulants do not have a sickening effect on the stomach. Many of the sufferers claim to get relief from it through its obtunding influence, and it seems to counteract an ever present weariness, which is a frequent symptom of these patients. With some, stimulants do not deaden their disagreeable feelings, then they resort to the use of opiates, chloral, etc., which is certain to increase the congestion even if it does give relief for the time being. If these deceiving narcotics are continued for a few months, their use will be almost certain to become a confirmed habit.

Such a human being is fast approaching a condition, that may very properly be called, "good-for-nothing." His physical and mental capacity will be so far below par, that he will feel actually unable to

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\* I would like to say in passing, that it would be well for the victim of the tobacco habit to take advantage of this rebellious condition of the stomach, and discontinue the use of this peculiarly fascinating agent. The remembrance of the exceeding convincing command that the stomach made to cease the use of tobacco, which it is needless to say was instantly and most willingly obeyed, has given him a good "start," and will exert a potent influence in holding him to resolution to "quit for good."

make sufficient exertion to attend to his business, nor will he be capable of managing his business transactions if they are in any way complicated.

If to these ailments are added another proof of weakness, the loss of virility, which not infrequently follows as a sequence of excessive catarrhal inflammation caused by any kind of an irritation, the victim is in a fit condition of mind to end his troubles by self-destruction. This method of relief is not an infrequent subject of conversation during the first visits to my office. It is not an uncommon thing for females as well as males to say that they would prefer death to an existence in this life, if they are not to obtain relief.

These symptoms, which are those of a greatly aggravated case of catarrh, are some of the results that follow the use of newspaper remedies, or, to make it more comprehensive so as to embrace all cases, in whatever way their catarrh may have been increased, the result of the use of agents, which, while they give momentary relief, cause an increase of irritation, that always ends in producing greater congestion, consequently increase of disease.

I have asked my patients for their reasons for employing these newspaper cures when they knew they were ignorant of their composition and effects; their answers invariably were; that they saw many of their symptoms described in the advertisements and, as these advertisements were often seen in religious papers, they thought they were safe in using the

"cure." These reasons with the fact that it did not cost much (?), induced them to give it a trial.

In many instances I found that they employed these patent agents more "on account of a fear of what their catarrhal complaint might run into"—to use their own words—than for relief from pain. Accompanying this fear there was another, many of them had relatives who had died of what their doctor called consumption, and they feared that they might have inherited that disease and that their catarrh was the commencement of it.\*

#### THE DECEPTIVE CHARACTER OF PATENT REMEDIES FOR CATARRH.

Most of the "cures" are composed of ingredients that produce a cooling and an anodyne effect on the inflamed and irritated mucous membrane, thus relieving the sufferer, for the time being, of the disagreeable heat of the parts and the annoying ever present distress. It is this deceiving property of these "cures" that induces the victim to continue the applications and to make subsequent purchases.

If the "cure" is a liquid, as Sanford's Radical Cure, Syke's Cure, Pond's, Papillon Cure, Lane's Cure, or a powder that is to be put into water and used as a wash as Sage's Catarrh Remedy, Jordan's Cure, Wie

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\* By the way ; the unproved, cruel assertion, that disease is inheritable—which I have denied to a large number of the members of this society, during the last fourteen years (1870)—has placed many an unearned dollar in the doctors pocket and many an easily frightened man and woman in an insane asylum and an untimely grave.



De Meyer's Cure, Tousley's Cure, Herman's Catarrh Cure, etc., cubebs or camphor or other agent of a cooling nature will form a part of their composition. The effect of both cubebs and camphor are positively injurious, the user taking cold on even slight exposure, and after a few repetitions of these "cures", symptoms of cold will be experienced without any exposure.

If the "cure" is a liquid that is to be used in the form of a vapor, as the Campho-Carbolate-Catarrh Cure, or is inhaled from an instrument as Cutler's Inhaler, it will contain tincture of iodine, carbolic acid, chloroform, etc., The vapor of the tincture of iodine is quite irritating to the already irritated mucous membrane, and will cause a profuse secretion of mucus which is conclusive evidence of its irritation. This can be readily proved by inhaling it alone. Carbolic acid always produces congestion whenever its strength is sufficient to induce a benumbing sensation, and this is its strength in the liquid accompanying the Cutler Inhaler. It is seen that when these agents are inhaled in combination, and especially if chloroform is also a part of the compound, the sensation of irritation that the iodine produces, is not experienced, because the anæsthetic property of the carbolic acid covers it, as it were, consequently the victim is severely injured without being made aware of it.

In fact, so very deceptive are most of these "cures," that, instead of being warned of their baneful effects by their employment, almost every individual who uses *them for the first time*, experiences, as I have

said before, a sensation of relief, and they are greatly elated at their good fortune in finding a cheap, sure remedy.

**A GRADED COURSE OF INJURY, GOING FROM PLEASANT RELIEF TO ABSOLUTE INTOLERANCE.**

Unfortunately the pleasant sensations arising from the cooling effect of the cubebs and camphor and the anodyne effect of the carbolic acid are very short-lived, for the reason that the injury done by the first application (that is the irritating effect of the iodine, the congestion following the carbolic acid, and the colds resulting from the cubebs) annuls some of the pleasant sensations produced by the second application; or, in other words, the injury resulting from the first application is added to the irritation occasioned by the disease, so that the pleasant sensations that are induced by the second application are not sufficient to overcome both irritations and leave the victim feeling as markedly improved as from the first application. This result follows each succeeding application, so that the latter applications are made, not because of the relief experienced at the time, but because of the remembrance of the great relief experienced after the first applications. The pleasant sensation becomes less and less with each succeeding application, until the injurious effects are greater than the pleasant effects can overcome, then a slight inconvenience is the result. This result will soon be increased to intolerance, if the "thing" is "pushed

regularly for a few weeks or months, at which time the victim's condition is most pitiable indeed, as has already been described.

CONTINUED APPLICATION INCREASES ALL CATARRHAL SYMPTOMS.

Frequently before the "cure" is used until the victim is made painfully aware that each application is doing him positive harm, he will observe that immediately after the transient, pleasant effects have passed away, his catarrhal symptoms are increased: that is, he takes cold more frequently and more severely; his headaches last longer; his difficulty in breathing is greater; his gagging and his efforts at clearing his throat in the morning are more troublesome; his memory shorter; his irritability of temper is markedly greater, and so on with every symptom occasioned by the disease when it is aggravated by local applications.

OTHER "SURE CURES."

Besides the "cures" mentioned, there are others, but most of them produce about the same effects and symptoms, each have a cooling agent or an anodyne in it. Many of them are in the form of a powder, such as Tousley's Snuff (carbolic acid, camphor, chlorate of potass, soda, etc.); Evory's Diamond Catarrh Remedy (carbolic acid, cinnamon, soda, salt, etc.); Marshalls Catarrh Snuff (camphor, chlorate of potash, etc.); Lyon's Tonic Snuff (Peruvian bark, camphor, iodine, etc.); Dobyn's; Herman's; Durno's; Ger-

man Catarrh Cure; McLean's; Shiloh's; Heyer's; etc. every one of which must injure every person who uses them. A few are in the shape of an ointment as Hall's (cubeb, etc, scented with rose); Ely's (peppermint, cubeb, etc.), etc.

Some of the "cures" are in the form of cigarettes as Draper's, Murison's, Marshall's, Lange's, Gale and Bloch's, Jefferies' Himrod's, etc. The latter two are to be smoked in pipes. Cubeb forms the principal injuring agent in these cigarettes and powders. Some are to be taken internally and are almost perfectly inert, as "Constitutional Catarrh Remedy", a liquid, that tastes exactly like a *very weak* solution of muriatic ammonia; Hall's Cure, a *very weak* solution of quassia; another, Roe's Nasal Pastilles (cubeb, etc., these are inserted in the nostrils) and still others that bear the name of their make-believe discoverer or inventor or their patentee, such as Kirkwood's and Crosby's Inhalers.

#### INHALERS.

Most of the inhaling apparatuses are so illustrated that they show the method of application. The sufferer, better named the victim, is seen in the act of blowing the white vapor out of his nostrils after he has inhaled the air through the bottle. This is intended to demonstrate that the vapor, after it has passed from the mouth up behind the soft palate and out through the nostrils, must have produced a bene-

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ficial effect on every portion of the diseased surface in the nasal cavities, which it does not do.

Most of these inhalers are apparatuses for the generation of nascent muriate of ammonia, which is seen to issue from the nostrils in quite a large volume. The vapor is made by passing air through muriatic acid and aqua ammonia. The combination of these two agents forms a dense white vapor, which in itself is not very injurious and if used alone would not do so much harm, but these discoverers of a remedy that has long ago been laid aside, always mix with the water, through which the vapor passes, carbolic acid and other agents that produce an immediate alleviating effect but which, as I have said, are harmful in their results.

Strange as it may appear to those who have given this subject a careful consideration, many of these newspaper remedies and apparatuses are prescribed and employed by physicians who stand high in the profession. They are, no doubt, deceived by the cooling effect of the cubebs when applied as a powder, by the alleviating effect of the carbolic acid and by the apparently philosophical method of applying the vapor. These worthless inhalers, with the usual compound of carbolic acid and iodine, are very popular with many English physicians. One ear surgeon of London, who is sometimes quoted as authority, is in the habit of prescribing them for his patients. A manufacturer of this apparatus in London repeatedly informed me of this fact, hoping that it would be



a sufficient recommendation to induce me to purchase one of them.

I have collected every catarrh, asthma and hay-fever "sure cure" that is in the market, numbering in all 58, and have carefully examined them. Eighteen of these "sure cures" are bald-faced frauds. One ounce of quassia chips, a pound or two of table salt and 40 gallons of water will make a barrel of "sure cure" that sells for one dollar a bottle, holding six ounces; the same quantity of water, a pound of muriate of ammonia, a pound of ground cubebs and a little common potash will make another "cure" that sells for fifty cents a bottle, holding four ounces. These two are the best of the eighteen frauds.

NASAL CATARRH NOT MORE FREQUENT NOW THAN FORMERLY, NOR MORE FREQUENT IN AMERICA THAN IN EUROPE.

I stated at the beginning of this paper that Americans especially were greatly injured by these advertised cures. I am satisfied from conversation with physicians in most of the large cities in Europe, that they do not see this third class, that is, those who resort to newspaper remedies, for the simple reason that very few of the European catarrhal sufferers resort to advertised remedies, nor do their newspapers advertise catarrh "cures" to a great extent.

It is because that this class, who are very numerous, complains so much and so loudly of their symptoms, that makes it appear as though nasal catarrh

was far more frequent now than formerly and far more severe and frequently seen in this country than in Europe; both conclusions are erroneous.

Those of us who have arrived at our fortieth or fiftieth year of age will recollect that very many of our school-mates had "dirty noses" and that sniffing up the nasal secretions was a most common practice by both the boys and girls of our young days. None but the most ignorant need be informed that this was due to a very profuse catarrh of a semi-chronic form. I do not think that any one will say that they observe to-day, more children with profuse secretion running from their nostrils than they saw in their youth. My observations lead me to say that there were as many children effected with this kind of nasal catarrh 20, 30, 40 and 50 years ago as at present. So much attention was not given to it at that time, consequently but few saw it. That there are as many persons suffering from nasal catarrh in Europe as in America, I know from observation, but because of the proneness of Americans to patronize advertisers, and because of their numerous, loud complaints after being injured by these advertised cures, this disease appears more frequently, now-a-days, as I have said, than formerly, and more frequent here than in Europe.



## CHAPTER XIV.

### SPECIAL HYGIENE FOR SINGERS AND SPEAKERS.

A comprehensive view of the hygiene of the voice embraces a consideration of the various parts of the body that are directly brought into action in the production of vocalization and phonation. Named in the order as they are found to be the most frequently affected to the degree of impeding the formation of desired sounds, they are the NASAL PASSAGES, the PHARYNGO-NASAL CAVITY, the TONSILS, the FAUCES, the LARYNX, the UVULA, the AZYGOS PROMINENCE AND SOFT PALATE, the EARS, the LUNGS, the TEETH, the TONGUE, the LIPS and the DIAPHRAGM. No one of these fourteen organs can be materially affected without affecting the voice to a greater or less extent.

#### THE NASAL PASSAGES.

These passages should be free of any super-abundant secretion, that is, the mucous membrane should not have more mucus on it than will maintain it in a moistened condition, consequently there should be none to blow out of the nose or draw out of the posterior nares or pharyngo-nasal cavity into the throat, and the breathing space should be sufficient for respiration on all occasions, except when running, or

when ascending a flight of stairs of 25 or 30 steps. When lying in bed, on one side of the body, if the lower nasal passage becomes closed or partially closed, it indicates the existence of a chronic catarrhal inflammation of that part.

Sometimes the inhalation of a little warm vaseline into the occluded passage will be all that is required for relief, using the inclinations of the head as directed for the inhalation of warm salt water, page 175. Applying a little vaseline on the bridge of the nose is frequently beneficial in cases of this kind and, also after catching cold.

If these means do not give the desired relief, a physician should be consulted at once.

#### THE PHARYNGO-NASAL CAVITY.

If one is conscious of the least flow of mucus from this cavity into the throat, this indicates a catarrhal condition of sufficient gravity to ask the aid of a physician, as nothing that the sufferer can do for himself is likely to result in anything but positive injury.

If a voice-user is in the habit of forcibly and suddenly drawing his breath up through his nostrils with his mouth shut, making a "skreeting" sound, thus drawing the post-nasal and pharyngo-nasal secretions down into the throat, or if he, with mouth closed, send a gust of air from his lungs up behind the soft palate out through the nasal passages, thus driving the catarrhal secretion that is lodged in the pharyngo-nasal cavity, into the posterior nares, these acts clearly prove the presence of a chronic catarrhal

inflammation that will be certain to weaken the voice if allowed to remain.

#### THE TONSILS.

These glands come next in being most frequently an impediment to voice-users. When they are in a healthy condition they are not in sight; consequently if they are ever seen they are diseased. The enlargement may be merely a swelling of a healthy organ, or it may be a permanent enlargement, in this case the name hypertrophy is given to the swollen organs. If one of both tonsils have suddenly become swollen, then it may be possible to reduce the inflammation and save the glands, but if the enlargement has been slowly coming on, or has been maintained for a year or more, then it is altogether likely that an operation by excision will be required.

There are but few remedies a sufferer can apply to his painful tonsils. Gargling the throat with hot milk and water—equal parts of each—with enough cayenne pepper in it to produce a pleasant warm sensation, is frequently relieving; taking a little vaseline in the mouth, and allowing it to flow over the inflamed tonsil is beneficial, but a physician should at once be called. Gargles of strong astringents or of *chlorate of potash* should NOT be employed, they always do harm.

After an excision of one or both tonsils, great care should be taken to prevent taking cold. If possible the operation should be performed at the patient's residence; but if performed at the physician's office a

large piece of cotton-batting should be warmed and put into each ear. The neck must be wrapped with an additional neck wrap, and the mouth kept closed. A little vaseline rubbed on the neck and around the ears is a good protective. The first meal after the operation should consist of soft food, as bread and milk, or oat or corn-meal porridge. If the act of speaking is not painful, this need not be restricted. As a general rule all disability from the operation disappears in three days at most.

Washing the mouth and gargling the throat with cold water early in the morning and late at night is healthful for the tonsils and fauces.

#### THE FAUCES.

The posterior surface of the pharynx, as seen when the mouth is opened wide and the tongue depressed, should not be more heightened in color than the anterior surface of the soft palate. If there is any roughness of the surface, called "follicular pharyngitis," this indicates a pharyngo-nasal and chronic nasal inflammation. If this is allowed to remain, the voice will ultimately become affected.

No application of iodine, nitrate of silver, nitric acid or any other caustic should be applied to these small elevations, as nothing applied to them will cause their disappearance. They are only an evidence of a chronic inflammation in the pharyngo-nasal cavity, no one is conscious of their presence by any effect they produce on respiration, deglutition or vocalization, they are perfectly painless, and can not—

be made to disappear by treating the originating inflammation.

The same gargle recommended for the tonsils may sometimes be beneficial for the fauces.

#### THE LARYNX.

Primary affection of this organ is extremely rare by those who cultivate their voice. Speaking or singing out doors to a large crowd very often results in primary injury of the vocal cords, as the voice-user is not conscious of the excessive strain he is exerting on the laryngeal muscles.

Almost the only primary affections of the larynx that I have seen have been brought on by the use of mops, brushes, probangs, gargles, etc., applying nitrate of silver and other astringents and *chlorate of potash*, cubebs, camphor, peppermint, etc. As the effects of these means and medicaments are mechanical injuries, time alone is an important and nearly the only means of cure.

Aside from these mechanical injuries, vocal disability is not due to laryngeal disease *per se*. Suppose we had a violin with all its parts perfect, the strings, keys, etc., in their right places. Now, if this instrument did not make the right tones at the right times, would it be correct to say that it was the violin's fault, when it was found the strings had not been made tight enough? Would it not be rather the fault of the tightening agency or power? So it is with the *larynx*.

*In nearly all recent vocal disabilities and even in*

recent aphonias (except in the case of those who have used tobacco inordinately for a number of years, their vocal cords always being inflamed) a reflection of the vocal cords will show that they are *not the least inflamed*, that their color is similar to the white of the eye,—the normal color—but on attempting phonation the cords act imperfectly, just as in the case of the violin with slack strings. The vocal strings in the larynx are not drawn tight enough, but it is not the fault of the larynx, but of the nerves that control the muscles of the vocal cords; these nerves have been seriously impaired by inflammation located, not in the larynx, for this is seen to be in a healthy condition, but two and a half to four inches above the larynx, that is, in the pharynx and pharyngo-nasal space. The surface of the parts named *are always inflamed*. This is a very important fact, and is proved to be true by treating these inflamed surfaces. On a reduction of the inflammation, the vocal disability disappears, the vocal cords come properly together and produce a perfect sound. I have witnessed this result almost thousands of times.

I again urge that this is a very important matter with singers and speakers. If, as is universally believed, their vocal disability is due to laryngeal trouble alone, then the larynx alone should be treated. Now, if the larynx is not at fault, and is vigorously treated with nitrate of silver—"the devil's own stuff"—what must be the result? The answer is, as has been demonstrated times without number, the case is made



far worse, if not premanently injured, confirming the assertions of almost every teacher of music and elocution, that "regular physicians do not know anything about such cases."

Singers and speakers should, if possible, avoid using their voices out doors. Many young men, who have excellent voices, have ruined them by singing at night, giving sernades to their young lady friends. Unconsciously, the vocal apparatus is over-taxed, and under these circumstances a serious cold is easily taken.

Do not undertake to sing in a room where a party have just completed a round of dancing, as the dust will be sure to do positive harm to the larynx. The same may be said of a room in which there is tobacco smoke, even a small quantity.

Avoid using the voice on board of the cars when they are running. Singers in an opera who are not at the time engaged in singing but are soon to take part in the play, should not use their vocal cords even in a low conversation, nor should they laugh between the acts.

Many singers act as though loudness was a part of the beauty of their song, thus running the risk of seriously impairing their vocal cords. It is not nearly as dangerous to the voice to speak loud, as it is to sing loud. Singing is holding the vocal cords in a continuous, uniform tension, whereas in loud speaking, the cords are only momentarily brought in their greatest tension.



Screaming should not be indulged in by voice-users; this act is very injurious to the vocal cords.

An adequate supply of air in the lungs is a requisite in singing and speaking. Very few voice-users retain too much air in their lungs, yet sometimes this is done to their very great inconvenience.

The voice should not be used too long in a continuous strain; a change of tone is a rest to the laryngeal muscles. Answers to an *encore* should not be given by rendering the same piece a second time; as this exhausts the larynx much more than giving an entirely new kind of a piece.

If your voice shows any weakness on rehearsing a piece, accept this as a warning to refrain for some time. Keep in mind that if you become fatigued soon, your method of using your voice is erroneous, or you are suffering under chronic inflammation of the nasal and pharyngo-nasal cavity, or your body, generally is much debilitated. Under these circumstances, desist as soon as an opportunity presents itself. A voice that has at one time been pure in tone, and soon becomes quivering and shaky, and has, at the same time, its former quality veiled, is suffering from some serious impediment which is most likely caused by inflammation of the pharyngo-nasal cavity.

No healthy singer or speaker requires to clear his throat before using his voice; those who require to do so, are afflicted with a chronic inflammation of the upper air passages.

If a speaker or singer, during the use of his voice,

perspires profusely, this also indicates that his system is over-taxed in the exercise of his debilitated vocal muscles.

THE FUNCTIONS OF THE UVULA, AZYGOS PROMINENCE  
AND SOFT PALATE.

The uvula and the azygos prominence as organs of the voice are not mentioned by any author on this subject. As I have made quite a large number of investigations, that reach back over fifteen years, that prove beyond a doubt, their importance in voice production, I will be quite lengthy in the presentation of these facts. As the experiments could not be made without including the soft palate, this organ also will be considered under this heading.

In November, 1876, I read a paper before the St. Louis Medical Society on the Function of the Uvula and the prominence formed by the muscles lying on the center of the posterior surface of the soft palate.

This paper was published in the St. Louis Medical and Surgical Journal for Dec., 1876. A few months afterward, as I was dissecting a soft palate, I discovered that what is now called the azygos uvulæ muscles are two sets or pairs of muscles.

The upper pair, or as I have named them the *Elevator Palati Muscles*, rise from the posterior edge of the nasal septum, run down the middle of the velum pendulum palati, and are inserted a little below the junction of the lower third with the middle third of the velum, interlacing with the fibers of the muscles below it. The insertion occupies about one-fifth to

one-sixth of the width, antero-posteriorly, of the soft palate.

The lower pair, or as I have named them, the *Elevator Uvulae Muscles*, rise from the place of insertion of the elevator palati muscles—their fibers interlacing with them—pass downward and are inserted into the connective tissue in the lower extremity of the uvula.

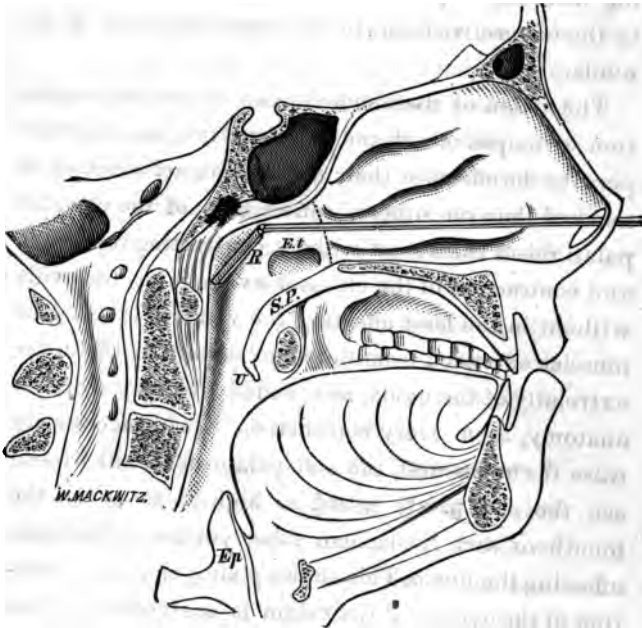
The action of these muscles can be seen by inspection with open mouth and depressed tongue. On some persons the effects of their contraction are much more marked than on others, contraction of the elevator palati raises the velum without contracting the uvula, and contraction of the elevator uvulae raises the uvula without in the least affecting the velum. If the same muscles extended from the nasal septum to the lower extremity of the uvula, as is stated by every work on anatomy, then every contraction would necessarily raise the uvula first, the soft palate next, but we can see the soft palate raised so high as to cover the mouth of each Eustachian tube, yet not in the least, effecting the uvula. This shows plainly that the elevation of the uvula and the velum is controlled by two distinct sets of muscles.

In the spring of 1870, I had a patient whose right nostril was of sufficient caliber to admit my little finger its entire length.

The idea occurred to me at once, that this case presented an excellent opportunity for examining the action of the uvula; and as our authorities say of this

grape shaped appendage, "its use is not clear,"<sup>1</sup> I determined to take advantage of this opportunity to inspect its motions during mastication, deglutition and vocalization.

Fig. 1.



Antero-posterior section of the head through nasal passages, showing the position of the mirror reflecting the upper surface of the soft palate, base of the tongue, epiglottis and vocal cords. *E. t.*, Mouth of the left Eustachian tube; *R.*, Reflector introduced through the left nostril; *S. P.*, Soft palate; *U.*, Uvula; *Ep.*, Epiglottis.

I had the patient keep this nostril wide open with a Kramer bi-valve ear speculum. Through this large nasal passage, thus dilated, I passed a reflector, reach-

1. *Dunglison's Med. Dic.*

ing (Fig. 1) to the posterior wall of the pharyngo-nasal cavity (Fig. 1, *R.*): on the reflector (*R.*) I directed a very bright light, illuminating the parts under observation, so that the image was reflected back to my eye very distinctly. In this manner I was enabled to inspect the upper or posterior surface of the soft palate, and the ridge on it that the elevators palati and uvulæ muscles form (Fig. 2, *Az-Pr.*), the base

Fig. 2.



View of the posterior nasal passages, the posterior surface of the soft palate, and base of the tongue. *Pt N.* posterior nares; *Et.* Eustachian tubes; *Az-Pr.* azygos prominence, on the upper surface of the soft palate formed by the elevator palati and elevator uvulæ muscles; *S-L.* semi-lunar openings formed by the tongue, uvula and soft palate; *T.* base of the tongue; *Ep.* epiglottis; *U* uvula.

of the tongue (*T.*), the epiglottis (*Ep.*), and the contents of the larynx, at the (Fig. 2) time of the attempted phonation of the sound "aye" with the mouth closed.

My observations on this patient were continued for a period of five weeks. Subsequently, I made numerous observations of a similar character on many other



patients, each of whom had lost the septum nasi, but had perfect soft palates.

Fig. 3.



The image, seen on the hinged reflector (*R*), of the lower edge of the soft palate and the lower or posterior concave surface of the uvula (*U*), showing, also the higher semi-lunar-shaped openings (*S-L*) made by the azygos prominence touching the posterior wall of the pharynx.

From notes taken at the time these inspections were made, I will state what part, in my judgement,

the soft palate, the uvula and the azygos prominence (Fig. 2, *Az-Pr.* and Fig. 3) take in the acts of mastication and deglutition, and what were their positions at the time of the phonation of such simple sounds, as (Fig. 3,) show enough of their action to demonstrate their apparent function ; reserving for the future, the details concerning the position of these three organs as well as that of the base of the tongue and the epiglottis during the phonation of specific sounds.

Although I know now that the uvula and the azy-

Fig. 4.



Antero-posterior section of the hard palate (*hp.*) and the soft palate (*sp.*) showing the position of the uvula resting on the base of the tongue (*t.*) ; *Ep.* epiglottis ; *E. t.* mouth of the left Eustachian tube.

gos prominence (Figs. 2 and 3) are not required to aid the acts of mastication and deglutition, yet I will give the results of the inspections while these processes were in progress, because these results contain



points of interest, when taken in connection with their action during phonation.

During mastication the whole free border of the soft palate rested on the base of the tongue, reaching within a short distance of the epiglottis. In five cases, the uvula was not in sight at any time, and seemed to be doubled under the velum, so as to lie between it and the tongue (Fig. 4). Two patients had elongated uvulas, which sometimes hung down on the base of the tongue, and frequently touched the epiglottis.

During the act of deglutition, the soft palate was pushed backward by the alimentary bolus, until the posterior wall of the pharynx was reached, the motion was continued in an upward direction until the upper surface of the velum was high enough to cover and close both Eustachian tubes, (Fig. 1, *S.P., Et.*) pushing the reflector (*R*) upward and forward; then the velum descended, as the alimentary bolus was swallowed, until its lower border touched the base of the tongue.

When I began to make observations, my attention was directed to the uvula alone; but the varying height of the azygos prominence during vocalization (Fig. 2, *Az.—Pr.*) in this, my first patient, drew my attention to it, and what I discovered, was confirmed in the subsequent examination of the other cases, namely: that this prominence which I have known to exist for some time,—though I have never thought of assigning to it, any function or use,—was of equal, if not more importance in vocalization than the uvula.

itself; so that, while seeking for the function of this grape-shaped appendage, I discovered a new organ, and ascertained its function at the time.

During the vocalization of sounds that passed through the nose alone, the whole free border of the soft palate rested on the base of the tongue as shown in Fig. 4, the uvula was not in sight at any time. During the vocalization of sounds that passed through the mouth alone, the soft palate was raised, and about 4" of its lower border pressed against the posterior wall of the pharynx as shown in Fig. 5.

Fig. 5.



Antero-posterior section of the hard palate (*hp.*) and the soft palate (*sp.*) showing the position of the velum closing the avenue to the pharyngo-nasal cavity. *U*, uvula; *t*, tongue; *Ep.* epiglottis.

From repeated inspections made while the velum was in each of these two positions, it appeared that all the sounds were uttered without the aid of either the uvula or the azygos prominence.

*The favorable opportunity of observing what asis-*

tance is rendered by the azygos prominence and the uvula, is during the phonation of such sounds as are required to pass through the mouth and nose at the same time. While these sounds were uttered, the soft palate was either suspended, so that but a small part of its central portion and the uvula rested on the base of the tongue, as shown in Fig. 6, or it was raised to Fig. 6.



View of the anterior surface of the soft palate, the uvula and the base of the tongue, showing the lower semi-lunar shaped opening (*S-l*) formed by the uvula (*U*) and a part of the central portion of the velum resting on the base of the tongue (*B. T.*).

such a height, that the azygos prominence touched the posterior wall of the pharynx, as shown in Fig. 3. In each situation the velum occupied the communication between the fauces and the mouth, and between the fauces and the pharyngo-nasal cavity was divided into two equal, or nearly equal, semi-lunar openings.

In the first position named, the division was made by the uvula and a small part of the central portion of the velum resting on the base of the tongue, shown in Fig. 6, *S-l*; and in the second position, the partition was made by the azygos prominence, Fig. 3, *S-l*, touching the posterior wall of the pharynx.

*In one patient I noticed several times that the uvula seemed to be resting on the base of the tongue, while at the same time, the azygos prominence was touch-*

ing the posterior wall of the pharynx.

The formation of the inferior or posterior surfaces of the uvula (Fig. 3, *U*), as well as the peculiar position in which it hangs from the velum (Figs. 1 and 2, *U*), indicates that this surface lies on the base of the tongue frequently, its extremity being directed forward (Fig. 4). It is evident that this is the best position in which it could be placed, to prevent the free edge of the soft palate from being shaken by the force of the air from the larynx.

It was observed repeatedly that the free border of the velum was not at any time suspended unsustained in the current of air during vocalization, but was always situated in such positions as to receive support, which prevented it from being thrown into vibrations by the force of the air that came from the larynx.

To show how the support was given, I will mention again all the principle positions that this vocal valve was observed to assume. (*a*.) It was either elevated and pressed against the posterior wall of the pharynx (Fig. 5, *U*), during the phonation of sounds that passed through the mouth alone; or (*b*) removed a little distance from the wall, but not so far as to prevent the azygos prominence from touching it, as shown in Fig. 3, seen in the image of the reflector *R*, for sounds that passed mostly through the mouth a little through the pharyngo-nasal cavity, or (*c*) lowered to allow the uvula and a small part of the central portion of the velum to rest on the base of the tongue (Fig. 6), for sounds that passed mostly through the nose, and a little through the mouth; or (*d*) still lower so that its

whole free border rested on the base of the tongue (Fig. 4), for sounds that passed through the nose alone. In a few instances, as has been mentioned I have seen the second and third position combined, *i. e.*, the uvula resting on the base of the tongue, and the azygos prominence touching the posterior wall of the pharynx at the same time (Figs. 3 and 6 combined).

From the effect of these positions of the velum on phonation, it would appear that one of its functions is to act as a valve, by directing the voice from the larynx into the mouth alone for the formation of one kind of tone; into the nose alone for another kind of tone; and to divide the sound, so as to allow it to escape from both of these openings, for still others. It is evident that while the velum is resting wholly on the base of the tongue, or is pressed against the posterior wall of the pharynx, that the liability for its free border to vibrate by the force of the air is reduced to a minimum. But when this valve is in either position that requires it to divide the sound between the mouth and the nose, then, on account of its free edge being suspended and placed immediately in the current of air from the larynx, the liability for it to vibrate is increased to a maximum.

A provision is necessary to prevent these vibrations. This provision, I am led to believe from my observations, is found in the uvula and the azygos prominence formed by the elevators palati and uvulæ muscles. They are located in the center of this very mobile palate or valve, and by their support in both of



the positions that require suspension (Figs. 3 and 4), prevents it from being shaken by the force of the current of air from the lungs. There can be no doubt, that if there were no uvula or azygos prominence to prevent this thin edge of suspended flesh from vibrating, it would be shaken to such a degree, as to impart a tremulousness to the tone of all sounds, forcibly uttered, that pass through the mouth and nose at the same time.

The following questions have been asked frequently: "1st. If the uvula is required to prevent the free border of the velum from vibrating during phonation, will not its loss impair the voice?"

The excision of the uvula can effect those tones only which are formed by its assistance, and not then even, if they are pronounced with the usual force of voice, because the contact of the central portion of the velum on the base of the tongue will be support enough to prevent the velum from being shaken: Therefore, the difficulty in pronouncing, in high and loud tones, those sounds required to pass mostly through the nose and a little through the mouth, will be in proportion to the amount of loss of support that the velum suffers. As usual excisions leave a stump of the uvula and the central portion of the soft palate; these will prevent any vibration during speech made with the *usual* force of the lungs.

I have observed that a patient, who has just undergone an operation for an excision of an elongated and hypertrophied uvula, may talk immediately in an

*ordinary* tone with greater ease than before the operation, but just as soon as he utters words with *more* than the *usual* force of voice; such, for instance, as he would require to address a person across the street, some of the efforts will remind him of the excised uvula, and though not causing as much pain as the knife did, will be sufficient to compel him to cut his sentence short of its intended length. The reason of this effect on the uvula appears to me to be this: The heavy uvula had given so much support to the soft palate, that, though it had been acting as an impediment to all kinds of sounds, the velum required *very* little of its own pressure on the base of the tongue to prevent these vibrations, but after the excision, greater pressure was required, and this occasioned pain. The loss of the uvula does not interfere with the formation of the two semi-lunar-shaped openings by the border of the velum and the dorsum of the tongue, by which the voice is allowed to escape from the mouth, and thus provide for perfect vocalization; it takes away a *part only* of the support from the soft palate. Even if there be no stump left by the excision, the tongue will learn to overcome the defect by the increased elevation of its dorsum, which may be made more convex than was required to form the two semi-lunar openings, than when the whole of the uvula was present, and in this way allow both a greater pressure and more of the central portion of the velum to rest on the tongue. But if the soft palate suffer so much of a loss of substance in its central portion, that



concavity is equal to the convexity of the dorsum of the tongue, thereby preventing the formation of the semi-lunar shaped openings, and neutralizing all support, there will be sounds—such as pass mostly through the pharyngo-nasal cavity and a little through the mouth—given imperfectly in spite of all efforts to overcome it, because the proper tone requires that the velum should be raised to allow a part of the sound to pass to the mouth, and this act of elevation exposes it to the force of the air from the larynx, which force is the cause of the imperfection of the sounds, by causing the unsupported velum to vibrate. Again if the loss in the center of the velum be greater than can be closed by the greatest convexity of the dorsum of the tongue, the disability will be equal to that caused by a perforation of the soft palate; and in addition there will be a tremulousness to many semi-nasal tones, on loud speaking, as addressing an individual at a distance. That the intermittent tone is occasioned by the vibrations of the central portion of the velum, is evidenced by pain or weariness in this part after lengthy speaking in a loud voice. This pain was experienced by two patients while under my care, whose soft palates were notched to this extent by ulceration.

In answer to the second question—"how to account for the improvement of the voice after removal of the uvula?"—I would ask, if it is claimed that this *improvement in speech* is equal to the patient's *vocalization at the time that his uvula was in a healthy con-*

dition. I am ~~sure~~—because the observations made on ~~this~~ subject during the last twelve years have taught me that the answer to this question should be given in the negative—that a relative improvement in speech does follow on excision of an elongated or hypertrophied uvula, there can be no doubt, because this operation brings the organ nearer its normal size and condition. But it resembles the improvement made by perforating the membrana tympani in a case of deafness caused by a closure of the Eustachian tube. Such improvement can never equal the normal function of the organ. This being the case, the effect of the excision will be to remove the cause of the mechanical hinderance to every word uttered by the patient, made in *any* degree of force, and it will leave a stump which will not be a cause of hinderance, but a cause of inability to pronounce some words on forced vocalization only, and this even will be overcome in time by the dorsum of the tongue becoming more convex. Therefore, to admit that the removal of a uvula thus diseased may improve the ability to speak in the usual tone of voice, does not prove that it was the uvula's removal alone, that ~~was~~ the origin of the improvement, for, if such were the case, the excision of the healthy uvula would not only be advisable but desirable.

The effect of the amputation of the whole of the uvula, besides being a loss of the greater part of the support of the velum, prevents the formation of the *lower portion* of the azygos prominence to its great-

est height, which is done by the contraction of the elevator uvulæ muscles, that form the uvula. This height of the prominence is required to prevent, by its contact with the posterior wall of the pharynx, the vibrations of the velum during the formation of many semi-nasal sounds. The nearer the surgeon can make the diseased uvula take the shape and size of the normal one, the nearer will it approach its normal function, that is, rendering the soft palate a non-vibratory valve, which is necessary to perfect phonation.

#### THE EARS.

Healthy ears are very essential to voice-users. No person can speak unless they can hear audible tones. The vocalization of every word, whether it is said or sung is performed by the guidance of the ears; consequently, if the hearing is imperfect, every word whether said or sung will be imperfectly vocalized.

Imperfect hearing is sometimes due to an accumulation of the ear wax in the auditory canal. Sometimes the accumulation is so great that the wax presses against the drum membrane, and gives rise to most distressing symptoms. On these occasions motion of the jaw will aggravate the trouble. More frequently the mass of cerumen is suddenly increased in size, by the absorption of water entering the ear while bathing, thus causing the wax to swell to the extent of completely closing the passage against the entrance

of sounds from without. This has the effect of suddenly changing the tone of the sufferer's voice. Every word, said or sung, has a peculiar loudness that both startles and greatly confuses. I have the history of a large number of cases whose deafness was accompanied by these symptoms.\*

Imperfect hearing is sometimes due to an extension of a nasal catarrhal inflammation into the Eustachian tubes. If the inflammation is of recent date and is accompanied by a profuse nasal discharge, it is altogether likely that one or both tubes are completely closed by muco-purulent secretion from the pharyngo-nasal cavity, thus preventing the air from entering the middle ear, an essential to good hearing. This condition occurs most frequently in young persons.

If the subject has had chronic catarrhal inflammation, an *opposite* condition of these small passages is brought about by the same kind of inflammation, namely, an abnormally *open* condition, known as pa-

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\* Mr.——a lawyer of eminence, æt. 49 years called to consult me about ear trouble, the following is the history of his symptoms:

“My hearing has been slowly decreasing for some months past. My wife noticed it before I did. Last Sunday I took a Turkish bath; immediately after I came from under the shower, I felt the left side of my face and head become slightly numb, and observed that every sound was much more indistinct than usual, but my own voice was loud and confusing. My ear pained me when I rubbed or pressed it. I went to my physician, but he did not attempt to do any thing for me, but sent me to you.”

After a large plug of cerumen had been removed, the disagreeable symptoms at once subsided, and his hearing returned to its usual degree of acuteness.

teney of the Eustachian tubes. In this latter condition, the voice has an opportunity to reach the ear from the pharynx, a much shorter rout than is natural, occasioning so much confusion of thought that the sufferer is *compelled* to desist from speaking, and correct singing cannot be done at all; it being impossible to strike one note properly, showing plainly the immense value the ears are to singers and speakers. In these instances the voice sounds double and produces the impression of one speaking in a large vacant room or with the head thrust into a large barrell. The sound of the voice is frequently so loud that it is very painful.

Again, imperfect hearing may be due to a chronic inflammatory process slowly thickening the mucous membrane of the Eustachian tubes, thus preventing the entrance of air into the middle ears, or this inflammation may injuriously affect the middle ears themselves by thickening the mucous membranes lining them, and thus prevent the free movements of the small bone of the ear as well as that of the drum membrane. Deafness from this cause is very slow in manifesting itself, and is perfectly painless. This is the most serious kind of deafness; 1st. because it slowly comes on the victim without his knowing it, and 2nd. because it is the most difficult to cure.

Lastly, imperfect hearing may be due to the nerves of the ears being diseased.

Whenever the hearing is the least impaired a physician should at once be consulted.



“Is it wrong, if the ear itches to pick it with a pin holding the pin by its point and putting the head into the ear?”

There is very little opportunity to injure the ear by picking it in this way, unless the integument lining the auditory passage is in a diseased condition. If the itching is caused by the presence of ear wax, the ear will be benefited by removing the wax with a pin. Even if the ear wax is not the cause of the itching, no harm can come from relief obtained in this way, except as above stated.

If the auditory passages require cleansing, do not dip the corner of a towel in cold water and thrust it into the ear. Cold water is very liable to injure the ear, producing a slight aching sensation. Everything applied to the auditory passages should be warm. Washing these passages with warm water is not harmful.

#### EAR MUFFS.

All patients who have suffered a perforation of the drum membrane, should protect the ear against cold winds by wearing an “ear muff” or by some other equally effective means. A few minutes exposure of such persons to a cold, damp wind, will almost certainly increase a chronic otorrhœa, and a consequent further decrease of the hearing, if it does not occasion so severe an inflammation as to involve health.

Ear muffs should be worn by every person in cold weather to protect the ears from the cold and damp winds.



## THE LUNGS.

The voice is the result of compressed air passing through the glottis, causing the vocal cords to vibrate. The compressed air comes from the lungs, consequently if these organs are capacious the quantity of air will be great, and the sound from the larynx proportionately voluminous. This being the case, voice-users should be most anxious to increase the capacity and strength of their lungs.

Breathing through the mouth is an acquired habit, and is usually caused by a limitation of the nasal passages, caused by swelling of the mucous membrane lining them. The effect of mouth breathing is injurious to the throat, larynx, lungs, and nasal passages themselves, as they require air to pass through them to maintain them in a healthy condition. If the nostrils were closed and maintained so for a month, I am sure that every portion of both passages would be in a highly inflamed condition, and this would soon be transferred by continuity of structure to the Eustachian tubes and middle ears.

## THE RESPIRATOR.

Avoid being in the dust, or out-doors in the night air, especially if the weather is cold and damp, or foggy. If compelled to be out in such weather cover the mouth with a thin silk handkerchief. This, in my opinion, is by far the BEST RESPIRATOR I have ever seen. I recommend it to every person requiring the protection of a respirator during our coldest days in winter.

## CORSETS.

If capacious lungs is desirable, then everything that prevents these bellows from swelling to their utmost, **SHOULD BE REMOVED.** This means that *corsets* should not be worn by those who desire capacious lungs. Wearing these girdling machines is another evidence of woman's weakness of character. Men show their good sense, their determination to be comfortable by not being "cramped" by garters or corsets, but women, and especially the most beautiful of them, are slaves, abject slaves to these *lung clamps*. They fancy that they are more attractive if their waists are small, when the contrary is the effect in the eyes of every student of nature. A pretty face over a small waist is bearable, but a homely face is made less attractive by squeezing that portion of her body between her shoulders and hips to resemble a wasp, and the smaller the waist the worse the effect on the general appearance. Every well educated man knows where a small waisted individual's lungs, liver, stomach, etc, etc, are pressed to. No sculptor would select such a warped, or rather deformed specimen of humanity as a model for his chisel.

Many women think their waists are naturally small. No doubt the female waist is smaller than the male waist; this being the case, there is less reason for wearing corsets. The majority of women's waists have been locked in cramping machines since they *were girls*, consequently, their ribs have not had an *opportunity* to take their proper, their natural places.

I have never seen a woman who admitted she wore her corsets too tight. The following are some of their expressions concerning this matter. "I can turn around inside of my corsets." "I can draw my corsets two inches closer and not feel them tight." "I can put a marble in the bosom of my dress and have it pass my waist," etc. Even if all this be true and they are not questioned, it does not, in the least, alter what has been said about the harmfulness of wearing corsets.

I have had quite a number of young ladies leave off their corsets—on a trial—for three to six month at a time. With one exception, they have not again put them on; several made the trial of again wearing them at an evening party, but they were anxious to get home to take them off, not to be again worn under any circumstances. I am satisfied, that if those who have been accustomed to wear corsets will take them off for one year, they will not again resort to this very unhealthy mode of appearing attractive; **THIS BEING THEIR ONLY USE.**

I know that many will say, "Oh, I feel so uncomfortable without my corsets, that I am sure they do not hurt *me*, at least." This is just what a Chinese woman would say regarding the removal of her small cramping shoes. The intelligent American woman is as near right in this respect, as the "heathen Chinese."

#### THE TEETH.

The throat and vocal apparatus cannot be in a perfectly healthy condition if there is even one badly

decayed tooth in the jaws, or the gums are diseased. (see page 183).

#### THE TONGUE.

No one who has used tobacco for fifteen years and is continuing to use it, has a healthy tongue. All malignant diseases of the tongue are preceded by long continued inflammation. A healthy tongue is never attacked by a cancerous growth. Nothing, that is usually put into the mouth, can produce a more lasting congestion than tobacco, especially as it is manufactured in last few years.

Tobacco cannot produce cancer, but it does always produce an inflammation that may terminate in cancer. Nine-tenths of the cases of cancer of the tongue in men, come from inflammation started and maintained by tobacco.

In the very great majority of instances, if the use of this narcotic were discontinued, the tongue would, in a few months, so far recover its normal condition that no disagreeable sensation would be experienced under any circumstances. A small percentage of those who complain from the effects of fissures of the tongue will require special local and constitutional treatment.

Of course if the tongue is much affected, speaking or singing will be more or less defective, as this organ has much to do with the formation of many sounds in both speech and song.

Some persons are in the habit of scraping the tongue when it is coated; this is quite injurious, and *does not* remove the offending secretion nearly as com-

pletely as gargling the mouth with quite warm water. Neither the scraping nor the gargling will remove the cause of the deposit, this can only be accomplished by proper attention to the system generally.

## THE LIPS.

It is seldom that the lips are diseased. They sometimes become chapped from excessive heat or cold but more often this condition indicates a disorder of the stomach. For mild cases the application of a little vaseline or mutton suet will give the desired relief. If a chap or sore on the lip has remained unhealed for a year or more, a physician should at once be consulted, as this may be the commencement of a cancer.

## THE DIAPHRAGM.

This organ is one of the accessories to the vocal apparatus, therefore its normal action should not be impeded. With men its functions are nearly always up to the normal standard; not so with women, as a rule. They employ the only means that could be devised to impede its full action. For this reason, to this sex alone is the subject of the proper use of the diaphragm addressed.

"The whole civilized world is in bondage to a pernicious habit of dress—practiced by its women and countenanced by its men—that threatens the abrogation of the diaphragm."\*

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\* Kitchen, on the Diaphragm, page 6.

NOTE.—This most excellent work should be read by every teacher of elocution and music, and by every woman who wears the girdling machine, called corsets. R.

To develop the full power of the vocal cords, either in speaking or singing, every accessory to these sound producing organs must be maintained in the best possible condition, and as the diaphragm should do fully two-thirds of the inspiratory labor, all constriction should be removed from the waist. It is evident that without full, free and easy inspiration the results of expiration—the voice—must be decidedly modified.

Then again, motion is an essential to perfect digestion of the food in the stomach and the healthy action of the bowels, and this motion is imparted to them by the diaphragm almost alone, if it is not impeded by a form of dress that prevents the expansion of the lower portion of the lungs.

All that has been said in other portions of this work in regard to the importance of the observance of hygienic measures, is equally applicable to professional voice-users, as they suffer far more severely in the throat from even slight violations of the laws of health, than do those who do not use their vocal organs professionally.

The more healthy the body, the less liability to catarrhal disease of the mucous membrane of the vocal apparatus. This should always be borne in mind.

It is of paramount importance that singers and speakers should prevent congestion of the mucous membrane of the nose, throat and ears. The principal congestors, given as they occur most frequently, are *COLDS, TOBACCO and ALCOHOLIC DRINKS.*



As the subjects relating to the effects of colds, the use of tobacco, etc., have been sufficiently dwelt upon in other parts of this work, they will not be repeated here (see pages 24, 66 and 78).

The answers to the following three questions are important to professional voice-users:

1st. Is it necessary for singers and speakers to protect their throats while going to the place where they are to sing or speak, and if so how shall they do it?

2nd. Should they use a gargle or a local tonic, in case their throats "do not feel quite right."

3rd. What course should be pursued after singing or speaking, and while on the way home?

PROTECTING THE THROAT BEFORE SINGING AND  
SPEAKING.

The answer to the *first* question is dictated by common sense, namely: protect the throat if the weather is such that if it is not protected the singer or speaker would be liable to take cold. A loosely knit woolen neck-comfort is the best wrap to for such purposes. It should not cause the least perspiration. Be particular on this point, as an over-heating of the neck might prove a greater detriment to the mucous membrane of the air passages than would happen to it, were no use made of a neck-wrap.

A small quantity of vaseline rubbed on the neck just after washing, will prove a valuable protector against colds. Many persons may fear that after the vaseline is applied to the neck, the skin will have a greasy appearance. This need not be the case, as the

quantity required is so very small that no one can see that any has been placed on the surface.

#### GARGLES, ETC.

The answer to the *second* question is that no healthy throat requires any local tonic, as such a throat is never dry nor does it feel "just a little out of sorts."

While this is the case with the healthy throat, a throat that is not quite healthy may be temporarily relieved by various agents, but the property that these agents must possess, is that of not doing the least harm while they are giving the singer or speaker a little relief. Such injurious compounds as "Brown Bronchial Troches," etc., composed, among other things, of cubeb or camphor, chlorate of potash and morphine, are sure to produce congestion of the mucous membrane of the fauces and larynx. Eschew every thing that has cubeb or camphor or chlorate of potash in it. Their effects are almost always injurious.

#### MURIATE OF AMMONIA.

The only agent that I would recommend is a small tablet made of compressed purified muriate of ammonia; This will frequently assist in causing a pleasant flow of faucial secretion, which sometimes relieves a dry sensation in the throat. If the sensation of dryness is continuous, a physician ought to be consulted.

#### SIPPING WATER WHILE SPEAKING.

It is best not to get in the habit of taking sips of water while speaking. If the speaker feels as though he must moisten his mouth, a teaspoonful of water just as relieving as a tablespoonful or a half glassful.

## THROAT "COMPORTS (?)"

The following is taken from Davis on the Voice, and is given to show the peculiarities of some singers in their attempt to give a finishing touch to improve the quality of the voice.

With many who follow the stage, but little judgment is exercise in the selection, of "throat helps" as, the following quotations prove: (?)

"Southeim takes a pinch of snuff and a glass of lemonade between acts.

"Niemann sips champagne.

"Tichatcheck washes his throat with mulled closet.

"Ferenczy, the tenor, smokes a few cigars.

"Braun Brini drinks a glass of beer at the conclusion of the first act; after the second act, a little moistened bread, after the third and fourth acts drinks *café* and when she is going to sing the great duet in fourth act of "The Huguenots," as goddess of the art of song, she demands a bottle of Moët Rose as a libation.

"Cruvelli takes a mixture of claret and champagne.

"Nilson takes a glass of beer.

"Madame Borghi Mamo is lost without a pinch of snuff.

"Malibram used to take supper in her box about half an hour before coming on the stage. She ate mutton cutlets in the costume of Desdemona, and almost invariably washed them down with half a bottle of sauterne. This was generally followed by smoking a cigarette, which was only tossed aside just before her appearance on the stage."

These "fancies" are not recommended. The opinion of most voice-users that I have met, is that those who

employed them could sing and speak well in spite of the bad effects of these "congesting" agencies.

The course pursued by the following singers and speakers is recommended :

Labatt, the Swedish tenor, is in the habit of eating a couple of salted cucumbers before appearing on the stage. He looked upon this as a strengthening remedy for the voice.

Wachtel, the tenor, takes an egg beaten up with a little sugar. He considers that this softens the voice, and is no doubt very good.

Madame Sontag used to take sardines between acts.

Madame Desparee soothes her throat with plain warm water.

Madame Cabel eats pears.

Adelina Patti prefers a bottle seltzer water.

Ngaldi has a preference for plums.

Trevelli Bettini eats strawberries.

One of my patients, a noted star actor, takes a cup of warm coffee with cream and sugar and a warm boiled potatoe with a little salt, between acts.

The following is the experience of an old Amateur of New York City :

"It appears rational to avoid anything before singing that would tend to irritate the throat.

"Some singers take egg (the yolk) beaten up with powdered sugar—others advocate to eat French prunes."

The following most excellent advice is from Prof. Scott of this city. I know from experience, that his *methods of* preparing the vocal organs for service is

followed by the best of results. In an answer to a letter asking his views on this subject, he kindly sent me the following :

St. Louis, Jan. 9th, 1885.

Dr. Thomas F. Rumbold.

"My Dear Doctor :

Your note reached me several days ago, and I have written out in the accompanying M. S., as well as my limited leisure has permitted, 'what I know.'

"If there is anything of value, in your estimation, and suitable for your Book, use it, or as much of it, as seems to you best.

"With high esteem and good wishes, I am

Sincerely Yours,

Jno. R. Scott."

PROF. JNO. R. SCOTT'S VOCAL GYMNASTICS  
AND HYGIENE FOR SPEAKERS.

"Several days before a public appearance, I begin the practice of breathing and vocal gymnastic exercises, several times daily, from ten to thirty minutes at a time. At first, the breathings are slow and gentle but deep, the inhalation and exhalation being through the nostrils. The force and rapidity are gradually increased, the inhalation being then through the nostrils and mouth consentaneously. To take a *quick* full breath through the nostrils alone is impracticable. The inhalation through the mouth, however rapid, should ALWAYS be *noiseless*; as, otherwise, the surfaces touched by the breath-current become parched and dry. The exhalation, through the mouth, with moderate resistance at the glottis, I make in turn, *effusive* (gentle and smooth) ; *expulsive* ( with a sustained

*rush*, the throat being freely open, and the abdominal and intercostal muscles giving the breath-impulse); and *explosive* (emptying the lungs through the open throat as quickly and completely as possible).

"My vocal exercises are numerous and varied. They are such as these :

"I. A light staccato striking of the vowels, after an occlusion of the glottis, on different levels of pitch, from highest to lowest. The vowels are not prolonged, but each a mere brilliant *point* of sound.

"II. Beginning at middle (conversational) pitch, each vowel is struck, higher and higher, until I reach "the top of my compass"; thence down, step by step, till I reach middle pitch or below. Each vowel is *spoken* not sung, and is struck abruptly and briefly with light quality (*timbre*) and force.

"III. Long upward and downward slides, as in earnest question and assertion, expulsively and explosively.

"IV. Direct wave movements,  $\Delta$ , on the long vowels, beginning gently, swelling the sound smoothly as the pitch rises, by increasing the breath-pressure, and letting it gradually die into silence, as the final sweep-downward is made.

"V. To secure resonance, clearness and blending character to the consonants. I prefix *b*, *d*, and *g* (hard) to the vowels, grasping and holding the consonants firmly and breaking abruptly and without hiatus into the vowel, which has an upward or downward inflection. Afterward I affix the consonants named to the vowels, prolonging the murmur of the consonant as much as possible.

"VI. I prefix, affix, and prefix and affix, *p*, *t*, *k*, to the vowels, making the consonant prompt and powerful.



"VII. I take some short, familiar dramatic passage, and *shout it* in a pure whisper, and then in a half-whisper, with open throat and vigorous expulsive breath-action; the breath renewed without gasping, every few words.

"VIII. Along with these gymnastic forms of exercise, I rehearse the selections I may have chosen for public rendition, as nearly as possible in the manner in which they are to be given.

"I do not necessarily practice all the above exercises at any one time, but the entire ground is several times covered in the three or four days preceding a public appearance. Were I before audiences night after night so much preparatory practice would probably not be necessary daily. I select my time for special practice as nearly midway between meals as I am able; as then the breath organs are most at liberty, and vigorous exercise does not disturb digestion.

"I eat a hearty meal three or four hours before an entertainment in which I take part, and touch nothing further in the way of meat or drink until my duties are done. Too long a fast would render me physically weak; and to use the voice energetically "upon a full stomach" is destructive to the voice and health. Upon my return home, I eat, if hungry; if not, not. To drink water, especially iced water, immediately before or while using the voice, is injurious. In going to and from the hall, theater, or church, my golden rule is, 'keep your mouth shut'! Especially is this important *after* public use of the voice; as the exertion of filling a large auditorium has drawn the blood to the organs of speech, and there is danger of a chill. A speaker who perspires freely—many do—should be extremely careful to cool off gradually before going out-doors.

## 168 PROTECTION AFTER SINGING AND SPEAKING.

"I use nothing in the way of syrup, lozenge, troche, lemon-drops, lemon-juice, candy, sugar, nitre, cubebs, or any other medicament to "aid and comfort" throat or voice, before or after speaking. I simply *go into training*, to get voice and voice apparatus into the best possible working condition; and try not to subject them to undue exposure after unusual exertion.

"My honored preceptor, Mr. James E. Murdoch, the eminent elocutionist and actor, invented a lozenge years ago, which, I believe, he still sometimes uses. When I took my lessons of him nearly thirteen years ago, I got a supply of them. They were consumed, with the aid of my friends, in a few months, and since then I have relied upon exercise and prudence alone to improve and preserve my voice."

### PROTECTING THE THROAT AFTER SINGING AND SPEAKING.

The *third* question, as to the course to be pursued immediately after exercising the voice and while on the way home, is a very important one.

Singers and speakers should not for a moment forget that after they have exercised their vocal cords, these organs are in a partially debilitated condition, and therefore more liable to be injuriously affected by even slight exposures to cold. This plainly indicates that extra protection should be placed around the neck, but great care should be taken not to place so much covering there, that even a very slight perspiration will be incited. The throat should have no MORE PROTECTION than is needed to ward off the injurious effects of cold, as excessive covering would maintain the blood in the larynx, just what is not desired.

If the atmosphere is even cool or damp, the mouth must be kept closed, and answers to question should be given through the nose with the mouth shut, in the usual double monotones, for yes and no.

#### VOCAL DISABILITY.

Temporary hoarseness is usually the result of a cold, or of an excessive use of the voice. Permanent hoarseness is usually the result of a chronic inflammation of the mucous membrane of the pharyngo-nasal cavity.

Medical treatment should be instituted for both kinds of hoarseness. The longer the delay, the more permanent the congestion, and the sequent results.

If the voice is once seriously affected, it will depend on the age and temperament of the patient as to the rapidity of its recovery, and whether it will recover at all.

If a cold has been so severe that it produces marked vocal disability, treatment by domestic remedies, or under the direction of any "kind friend," should not be undertaken. A physician should be sent for at once; one who is acquainted with such diseases, as it is a matter of very great importance to drive away a cold at once, if possible.

The patient should do his utmost to resist all tendency to cough; he should suppress it completely if he can; if he is not able to do so, he should hold it in obedience as much as possible, for the more he coughs, the more certainly will the inflammation extend to the vocal cords. He should keep in mind that he may

have a severe cough (not one that has lasted a long time) and have vocal disability without the vocal cords being implicated, but he should also remember that coughing will soon induce inflammation of the vocal cords. (See page 200, "Stop your coughing.")

Rubbing the neck, plentifully with vaseline, and then wrapping it with a strip of flannel will have a very beneficial result.

The general directions for driving away a cold given on page 41 should be followed, provided a physician is not called to take charge of the case.

Of course, while suffering from a cold, the voice must not be used in singing or speaking exercises; as soon as convalescence has commenced, then gentle exercises may be beneficial. It may be necessary for the patient to speak in a whisper or in a very low tone and to avoid laughing.

On recovering from a cold, the vocal exercises should be progressive, and in accordance with well known rules given by teachers of singing and elocution. The *eight* exercises, given in this chapter by Prof. Jno. R. Scott, are productive of excellent results. I recommend such a course—which I learned from Mr. Scott, when a pupil of his—to all of my patients who have weak chests, that is, whose respiratory expansion was hardly 2 inches, and soon observe great improvement in their lung capacity.

Sometimes a Turkish bath will have an excellent effect on full-fleshed, hearty individuals, but two hours at least should be spent in the cooling room, and it

would be well to have the back and neck well rubbed with vaseline, after being dried. Except for young (under twenty-five years), strong persons, the cold douche should not be taken.

The instructions found in the chapter on BATHING, page 242, should be followed by all voice users.

Those singers and speakers, who are thin in flesh, and who have a dry surface of the body, should carefully follow the instructions found in the chapter on INUNCTIONS, page 190.

#### TEMPERATURE OF THE STAGE.

Many good voices have been ruined by singing and speaking on a cold stage. An over-heated stage is nearly as injurious.

It is preferable that the temperature of the stage should be PLEASANTLY COOL rather than pleasantly warm. A pleasantly cool temperature in a room where one is walking and is exercising their vocal powers, is about 65° to 70° F.; whereas a pleasantly warm temperature is in the neighborhood of 85° F.

On a stage of the latter temperature, overheating is very apt to occur, whereas with a pleasantly cool stage this is far less liable. Every singer and speaker whose throat is weak, should remember that an overheating almost always results in a cold being taken.

#### DIET.

Voice-users should carefully avoid every article of diet that disagrees with them. As a general thing, pie, cake, nuts, salt meat, and highly reasoned food of any kind *should be avoided*. The voice will be at its best



if the stomach is not too full or too empty. The meal before appearing on the stage should be as fluid as possible to be strengthening. Beef-soup or beef-tea is excellent because it furnishes the strength without requiring great activity of the stomach.

#### SLEEP.

One of the most common violations of the laws of health, is that of remaining up out of bed until 1, 2 and sometimes 3 o'clock in the morning. The nervous system has been heavily taxed by singing or acting or speaking in a theater or lecture room for two and a half to three hours; the whole body is greatly exhausted, and frequently excited. To relieve this condition of the system, unfortunately many resort to stimulants and tobacco, and frequently a heavy, undigestible meal is also taken.

This course is ALWAYS productive of harm to the vocal organs and the system generally.

The relief experienced from stimulants is entirely deceptive. The mucous membrane of the nose, throat and ears are greatly injured thereby, while the imbibitor is not relieved in the least, although he seems to experience relief of his weariness; not only this, but the system has an additional burden to remove, namely, the congestion of ALL THE MUCOUS SURFACES.

Much of the exhaustion is due to excitement and the only cure for this condition is SOUND, UNASSISTED SLEEP.

Many times the whole body is in a feverish condition after a night's use of the voice; a refreshing relief,



is to have the body sponged off with water and a little bay rum, while lying in bed, undressed. Have the servant apply the sponge under the bed clothes and rub those parts of the body that produces the most relieving sensation, especially up and down the spine.

Rubbing the spine slowly and somewhat strongly has a very grateful effect, and if the remainder of the body has been well cooled, the massage—for so it may very properly be called—of the spine will actually induce sleep.

Nine hours sleep, is not too much after a night's singing or speaking on the stage. The body recovers much more rapidly during sleep. Do not sleep in an illy ventilated room.

Do not take medicine to induce sleep, unless by the advice of a physician. Many singers and actors do, but the practice is injurious, nevertheless.

## CHAPTER XV.

### PRURITIC RHINITIS (Hay-Fever).

#### LOCAL SYMPTOMS; SUBJECTIVE AND OBJECTIVE.

It is impossible to give the local symptoms, so that they may be seen in every case that may come to the reader's observation, for the reason that all symptoms vary according to the age of the complaint and the temperament of the sufferer, but enough can be given to pretty fully portray the peculiarities of the ailment.

#### THE SKIN.

The skin of the nose and face is frequently the first to be affected by an itching sensation. Sometimes it is a little heightened in color, even before it is rubbed and appears as though a rash were about to break out. Then this sensation extends to the scalp, on the back of the neck, between the shoulders and under the arms. In extreme cases the integument of the whole body suffers to some extent.

After the complaint has lasted about one week, and the skin has been vigorously rubbed in the attempt to relieve it of the itching, an eruption is frequently observed, resembling prurigo. Sometimes the angles of the eyes, especially the inner, become quite inflamed, which the ever-present itching induces the victims to aggravate by more rubbing, until small  
*les form on the irritated spots. Slight ulceration*

appears at the alæ of the nostrils, causing considerable suffering when the itching compels the victims to severely rub the parts for relief. The same kind of an eruption, or herpetic appearance is observed around the mouth.

Some cases suffer from extreme itching on the ankles and wrists, and when rubbed, becomes swollen and sore; then pustules appear, which when ruptured do not quickly heal.

Most patients perspire easily and freely, then the skin becomes excessively sensitive to even slight draughts of air, and becomes cold and clammy.

A peculiarity of the eruptions is its sudden appearance and disappearance, lasting frequently but a few minutes or hours. When such is the case, the skin is very easily chafed, especially around the neck where the band of the under-vest rubs the parts.

Dr. Wyman mentions a man who "had redness of the skin of the color of a boiled lobster, compelling him to keep his bed five days."

#### THE EYES.

The eyes come next in the succession of being the most early and frequently affected, the itching—the characteristic feature of the complaint—usually commences at the inner corners. If the left nostril has been the one more affected with the chronic catarrhal inflammation, then the left eye is the first and more severely affected with the itching. The irritation always reddens the conjunctiva, then the whole eye

is suffused in tears, the lids become swollen and in the morning they are agglutinated to each other by the Meibomian secretions. On awaking in the morning this instantly gives rise to an attack of itching of the eye-lids, which instantly extends to the nostrils. So "unanimously," as one of my patients expressed it, does this take place, that he was unable to say which part was first affected. This condition of things lasts but a few seconds when the nostrils are completely closed, apparently on account of the tears flowing down the lachrymal canals.

The tears have a positively irritating effect on the cheeks as they flow from the eyes. When the eyes are in this condition, a bright sunlight is so very aggravating that the victims instantly endeavor to shut out the light by placing both of his hands over his face. A dark, cool room is the only place in which he can quickly recover from his attack.

A peculiarity is, that after the attack, the congestion of the blood vessels as suddenly disappears as the attack appeared, leaving no visible trace behind, although in some cases styes are apparently the result of the excessive hyperæmia of the lids.

#### THE NASAL CAVITIES.

The nose is sometimes the location from which the pruritic symptoms originate. These may be started by a slight push in any direction but especially if given sidewise. I had one patient whose principal *agony* came from minute boils that formed, but did

not entirely heal up until the season was past. In some patients the muscles connected with the nose were in almost continual spasmodic contraction, a kind of choreaic condition, just previous to an attack of sneezing. The nasal passages, according to Beard and Wyman are the parts that most frequently suffer first and most severely. The sneezing is occasioned by the itching. The first wink of the eyes sends the irritating tears down the lachrymal canals which instantly starts the itching, this is followed by sneezing and a largely increased flow of nasal mucous that completely occludes the nasal passages. If the victim blows his nose, as he feels inclined to do, this will aggravate the matter, by causing a full, sore sensation in the cavities.

It is remarkable that the excessive congestion of the mucous membrane does not more frequently lead to nose-bleed. Dr. Wyman mentions a case that had nasal hæmorrhage, I have not seen one.

As soon as the paroxysm is passed, the passages slowly open so that respiration can be again carried on through them. The nostril that was usually obstructed during the chronic catarrhal stage will be the occluded one during the paroxysms.

As the paroxysms are most severe and most frequent in the mornings, the nasal obstruction will occur at this time of the day also.

The quantity of the nasal discharge, in one morning varies from wetting five or six handkerchiefs to twenty. In the older cases, the secretion is of a

watery nature, except at the close of the season, when it is somewhat "sticky" but with those who have had but "two or three seasons of it," the secretion is always "sticky," and toward the close of the season, the purulent character is quite marked.

In a few cases a spurt of violent exercise, to the extent of producing a gentle perspiration has an opening effect on the nasal passages, and a quieting effect on that day's attack.

In every patient the mucous membrane was observed to be in an excessively hyperæmic condition, and of a dark, purplish-red color. The blood vessels, usually plainly visible during the chronic catarrhal stage, were not in sight.

The sense of smell is always obtunded, and odors, that before gave pleasure while not causing the least irritation, have usually a disagreeable effect, but still unrecognizable.

#### THE PHARYNGO-NASAL CAVITY.

The pharyngo-nasal cavity is always less severely affected than the nasal cavity, but an itching sensation is felt here also. The only means of relieving this part is by coughing, retching and vomiting. All of my patients had the coughing and retching, and most of them had the vomiting.

The mucous membrane while not of so deep a red color as the superior turbinated processes, was quite a dark red, and in some patients the membrane had an œdematous appearance.



The subjective symptoms due to inflammation in this locality are almost uniformly felt in the throat and for this reason patients try to relieve themselves by coughing.

#### VELUM AND UVULA.

The soft palate and the uvula are very frequently the seat of an itching sensation. In severe cases, at the end of the season, the velum is frequently in a parietic condition, so much so as to allow fluids to pass up into the pharyngo-nasal cavity and nostrils. In a few cases the uvula is slightly oedematous; in one patient it was so dropsical that it almost filled the whole space between the enlarged tonsils. In this patient the sense of suffocation on assuming the horizontal position, was so great that he slept in an arm chair all night. In some the uvula is so much elongated that it acts as a foreign body in maintaining the cough.

#### EUSTACHIAN TUBES AND MIDDLE EARS.

The itching sensation sometimes extends up the Eustachian tubes to the middle ears. As soon as these cavities are reached a fine sticking sensation is experienced in the root of the tongue, showing that the chorda tympani nerve is affected. In about a fourth of my patients their hearing was manifestly decreased.

#### FAUCES AND LARYNX.

On account of the excessive effort to relieve the throat of the itching sensation by coughing, the whole surface is much congested and in an excessively sen-

sitive condition, so much so that it requires some dexterity to make an examination and to apply the spray producers.

A paretic condition of the faucial muscles is sometimes observed, and with this the parts lose their proper sensation to such an extent that it is quite a labor to swallow food.

#### THE TONSILS.

The tonsils are not often swollen, but are frequently quite painful, and are particularly so on swallowing. This pain is sometimes felt up in the ears, or if one tonsil is alone affected, the corresponding ear is the one in which the pain is felt, and the hearing in this ear is always defective.

When both tonsils are swollen and painful, and the nostrils are closed, eating and drinking is a somewhat dangerous operation, on account of the liability of the food being either driven up into the pharyngo-nasal cavity or allowed to partly pass into the larynx; in which case there is severe and spasmodic coughing, and threatened asphyxia

If the nostrils are occluded, so that respiration is carried on through the mouth, the lips, gums, tongue, soft palate and throat all become dry and parched, and all seem as though it were impossible to move or use them, but as soon as a little water is taken into the mouth, and made to bathe all the parts, their faculties return.

*The secretion from the throat is quite tough if it*

is not profuse, and the effort to get rid of it frequently maintains the throat in a sore condition. I have had but one patient who had severe itching in the roof of the mouth; all the others had this sensation in this locality but slightly.

#### THE TRACHEA, BRONCHIAL TUBES, AND LUNGS.

The itching extends from the fauces to the larynx, and thence to the trachea and lower air passages. This sensation is the sole cause of the spasmodic action of the lower air passages, or in other words, the asthmatic symptoms.

The cough does not commence until the parts are very much irritated by the endeavors of the victim to relieve himself of the itching. For this reason the cough is observed in the second and third week of the pruritic season. The itching is sometimes felt in the trachea or at least the victim asserts that it is deep in the chest, where one would locate the wind-pipe.

If the sufferer is awakened by the itching sensation in his face, eyes or nose, before he gets through attending to these parts with his hands, his tongue is called upon to relieve the same sensation in the roof of the mouth, and a rasping cough is raised for the purpose of relieving the throat, and instantly on this attempt being made the same sensation is felt in the larynx, trachea and even in the bronchial tubes.

#### DECEPTIVE SENSATIONS.

The sensation experienced in the throat, is occasioned by the itching in the pharyngo-nasal cavity.

This is easily shown by the application of a soothing remedy applied by means of the spray producer that throws a vertical stream. If this is the case, then it is evident that coughing or clearing the throat will not relieve the irritation located up behind the soft palate, at least five inches above the vocal cords, the locality of the cough, and it is also as evident that the less the patient coughs, the less irritation to the vocal cords, the larynx and the throat, not to mention the effect of a fruitless cough on the air passages in the lungs.

Some patients are so wearied by their efforts at coughing that they can hardly stand; the cough is especially fatiguing if the expectoration is scanty. In these cases, the endeavor is to relieve the itching sensation of the throat by efforts at retching, which frequently result in vomiting.

#### THE VOICE.

The voice is soon affected, so that hoarseness is a constant symptom after two or three weeks coughing. The color of the vocal cords is the same as that of the surrounding mucous membrane, instead of being a pearly white resembling the sclerotic coat of the eye.

#### ASTHMATICS

Toward the latter part of the pruritic period the symptoms seem to be still less severe in the eyes, face, nasal passages. At this stage a slight cough is sufficient to bring on short breathing or asthmatic symp-

toms. I am satisfied that if patients could be relieved of the irritation in the pharyngo-nasal cavity, that produces the desire to cough, asthma would not be likely to follow. Patient who have but slight cough are free of asthma, while those who commenced early to cough both frequently and severely, were severely afflicted with asthma; in other words, the milder the cough, the milder the asthma.

A dinner, made hearty by the use of stimulants, is apt to induce short breathing, but it is not a genuine attack like the one that comes on immediately after the first coughing spell on retiring for the night; these attacks cause the victim to jump out of bed and grasp any object for support.

As the pectoral and intercostal muscles are severely exercised in coughing, this may give rise to a pain in the chest, which may fill the patient with fear lest his lungs are becoming seriously involved, but even a slight examination will soon show that they are not seriously affected, although mucous râles may be heard. These râles will pass away in a few hours, perhaps to again appear after the next paroxysm. The attacks of asthma that follow retching without vomiting always last longer than when there is vomiting. Why? Because the act of vomiting clears out the pharyngo-nasal cavity quickly, whereas the retching alone does not do so, showing that irritation in this cavity can have a marked effect on the lungs, as well as on the larynx.

## THE HEART.

Palpitation of the heart is a frequent sequence of of this complaint ; so is an intermittent pulse. Most patients complain of a soreness in the region of the heart after they have recovered from their asthmatic attacks. The pulse is not more frequent than would be expected after the bodily exertion of the paroxysms. Many of these patients live under the impression that they have heart disease, but this organ is not affected except in sufferers who have had chronic nasal catarrh for thirty-five or forty years.



## CHAPTER XVI.

### ASTHMA AND PRURITIC RHINITIS.

#### SPECIAL HYGIENIC FOR ASTHMATICS.

This is another one of the sequences of chronic nasal catarrh. The care that should be taken by patients afflicted with this complaint, differs but little from that of those afflicted with common catarrh.

The asthmatic must avoid dust as carefully as the sufferer from pruritic catarrh. They must avoid all sulphurous odors, and a dry hot atmosphere. They must avoid night air, and remain at home on damp days, in both fall and spring seasons. I would recommend every asthmatic to list his food, being particular to note every article of diet that disagrees with him. Very few asthmatics can bathe frequently even in warm weather, but every one may keep his body perfectly clean by means of vaseline, using a "woolen rubber" twelve inches square. This is made of three thicknesses of flannel, not sewed together around the edge but tacked together every two inches, as cotton comforts are fastened together. Many patients were very greatly astonished when told that it was possible to cleanse the surface of the

body just as perfectly in this manner as by water and soap, with the advantage of not taking the least cold from it.

The instructions regarding the importance of avoiding colds, protection of the body in general, and all the other hygienic and sanative measures recommended for catarrhal patients, apply to all asthmatics, because all asthmatics are catarrhal patients.

Horse back riding is the most beneficial exercise for these patients. They should walk as little as possible during the fall and spring months.

Quite a number of my patients, who had reach the age of from 45 to 60 years, have been benefited by employing abdominal respiration, that is by breathing without elevating or depressing the ribs. In this way the diaphragm alone does the work of taking in the breath, and the abdominal muscles alone the work of expelling it. This rests the two sets of muscles attached to the ribs.

Female patients must not construe this into a license to wear corsets or anything tight around the waist.

Asthmatics should eat light suppers; they should not drink milk after they have taken their dinner. Those who have been in the habit of drinking alcoholic liquors will be much benefited by drinking one or two goblets of hot water before getting out of bed in the morning. This will have a good effect on the stomach, bowels and kidneys.

SPECIAL HYGIENE OF PRURITIC CATARRH (*hay-fever,*  
*etc.*)\*

It is as preposterous to expect to even alleviate a patient afflicted with pruritic catarrh without strictly following the rules of hygiene, as it would be to maintain a ship dry with a leakage in its hull or a man sober while continually imbibing large quantities of alcoholic drinks.

## PROTECTING THE HEAD. THE HAIR.

If a patient who has suffered from annual attacks of this complaint for about five years, and whose head perspires freely, should make the mistake of having his hair cut so short that it cannot be parted, he will soon learn, to his sorrow, that but little can be done to lessen the severity of his paroxysms, until his hair again grows. A cap may afford him some protection but because of its too frequent removal, it will not take the place of the lost hair. A properly constructed wig will come nearest to doing this.

## WIGS, HEALTHFUL TO THE BALD-HEADED.

A large proportion of persons who are afflicted with pruritic catarrh are bald-headed, and the scalp of very many of them perspire profusely on the slightest exertion. With such, a very slight draught of air is sufficient to bring on a paroxysm of sneezing. An acquaintance, who had the misfortune to be quite

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\* Read before the St. Louis Medical Society, May 17th, 1884.

bald, informed me in 1872 that he cured himself of his "hay-fever" by wearing a wig. He had suffered from this complaint for a few years, and observed that he was most liable to sneeze when his head was bathed with perspiration. If at such times he wiped his head with a handkerchief that had been wet, it produced a cold, chilly sensation to his head, and always caused sneezing; if he used a warm handkerchief he did not sneeze. He had a relative who was a wig maker, and who advised him to wear a wig to prevent him from wiping his head so often. It took him some weeks torture by the disease before his pride—AN EXCEEDINGLY FOOLISH ONE—gave way. He felt an improvement on the first day of wearing the wig and did not have an attack after that season. Of course he continues to wear the wig. Besides relieving him of his annual attacks of pruritic catarrh, he was relieved of headache also, a complaint that he had been subject to for years before his attack of "hay-fever."

I strongly urge all my bald-headed patients, whether afflicted with pruritic catarrh or with common chronic nasal catarrh, to wear a wig. The hair should be let grow until it is long enough to nearly touch the coat or dress collar; it should not at any time be much shorter or longer on *any person*, male or female.

The beard should be allowed to grow until it forms a good protection to the throat and neck. Shaving is a *flagrant* violation of one of the laws of health.

## HATS AND CAPS.

The best hat for male patients is the soft hat.

A light skull cap should be worn day and night when the patient is in the house. It is not necessary to have a different cap for night wear, unless a warmer one was required at night, for the protection of the head is equally essential during all hours of the day and night.

All of these patients, male and female, perspire very freely about the head, and while the scalp is thus covered with moisture, even a slight draught of air will, in a few minutes, reduce the temperature of the surface fully 20°F. which in all probability, will be sufficient to produce a paroxysm. The cap is intended to prevent this sudden lowering of the temperature, not for the purpose of keeping the head warm.

Female patients should wear a silk hood day and night, which need not be heavily quilted.

Those patients who do not require the inunction of the whole body with vaseline, may require to have the face, neck, hands and feet anointed with vaseline, as they retire for the night, as described in the section relating to local treatment.

## CLOTHING.

Patients of both sexes should wear thin stocking-knit, cotton and wool mixed, vest and drawers, and a heavy suit of pure flannel over them. The advantage of wearing cotton next to the body, is that it absorbs the perspiration, thus preventing a cold, chilly

sensation, should the body be exposed to a draught of air. Some of my patients have felt the necessity of wearing a third suit consisting of heavy flannel even on hot days, and claimed that they did not suffer in the least from excess of heat. This class of patients and all whose nasal passages are affected with catarrhal inflammation require a large amount of clothing and they bear it with great comfort.

#### INUNCTION OF THE BODY.

This is very frequently productive of marked benefit. The room in which the inunction is to be made should be kept quite comfortable. Vaseline is the substance to be used. It should be rubbed on by means of a flannel cloth made hot over a lamp. The clothing should be removed to the waist, and the body well rubbed, occupying about fifteen minutes time, then the clothing should be replaced, and that of the lower portion of the body removed, after which this part also should be well anointed, occupying about the same length of time. Some patients are remarkably fond of this operation and spend an hour and even longer in completing it.

#### THE FEET.

Male patients should wear boots, females high shoes. Two pairs of stockings should be worn; the pair next the feet should be cotton and the other woolen.

If slippers are to be worn, a pair of heavy woolen stockings should be drawn on over the stockings *already on the feet.*



**Females** must not wear elastic garters. In order to maintain the hose in place, they should be pulled on over the thin underdrawers, and held by four elastic straps, each of which has brass loops on each end, so formed as to securely retain the hold on the drawers and the top of the hose. In this way the circulation of the blood in the limbs is not impeded.

#### THE SLEEPING ROOM.

**The** sleeping room should be large, and well swept and dusted every day, and should face the South and East if possible. From morning until 1 P. M., all the windows and doors should be left wide open; after that time they should be all closed up tight and the sunlight be excluded to almost total darkness. A piece of ice, weighing about 10 lbs., hung up about 6 feet high, in the middle of the room, will lower the temperature of the air to a pleasant coolness, and it will continue so during the whole night. Some might think that this would make the air of room too damp, but such is not the case.

If the ice melts too rapidly so that the air is made too cold, the ice may be covered with a piece of cotton or woolen cloth; as with the latter, the ice will melt more slowly than with the cotton covering. A swing to hold the ice may be made of a common towel, stretched and held by the four corners. This leaves the ice exposed to the downward current of warm air, which, as soon as it strikes the ice is lowered in temperature, continues in its course to the floor, forming the lower stratum of air in the room.

The water from the ice may be caught in a bucket or other receptacle as it drops from the towel.

#### SLEEP.

The patient should sleep between blankets, but not on feathers or old moss or old hair, a cotton mattress is the best. If a cotton mattress is not used then a heavy cotton quilt should cover the bed mattress. It will be well to have the pillows made of cotton.

Anointing the face, neck, hands and feet with vaseline, just before retiring is quite refreshing, because it is cooling.

The "catarrhal season" should be slept away if possible, but it is not best to sleep so much during the day that the night will be passed in wakefulness. If the patient cannot sleep sufficiently long at night, an anodyne should be given, but as a usual thing the ice and quinine produces refreshing repose.

#### THE DIET.

A good, nourishing diet is advisable. Everything that the patient thinks may disagree with him, and all those articles known to disagree with him, should be avoided. Going to bed very hungry may prevent a good night's sleep. Drinking water is always healthful. One to two teacupfuls of hot water as soon as the patient rises from bed in the morning, or if convenient, before rising, is frequently conducive to good digestion. Milk, if taken after dinner, is liable to induce a cough by its causing the mucus in the *throat* to become quite thick and adherent.

**EXERCISE.**

Many of these patients suffer from palpitation of the heart when they take exercise, but some gentle exertion, even to the extent of inducing a slight perspiration, is quite beneficial. As a general thing, the avoidance of sunlight, dust, smoke and other irritating agents that float in the air is the most conducive to comfort. Walking in a close, darkened room, in which a piece of ice is hung, to keep the temperature fully 10° F. to 20° F. below the outside temperature, is usually quite refreshing.

**TO BE AVOIDED.**

Sufferers from this complaint should not bathe; should not smoke, chew or snuff tobacco; should not drink beer, wine, whisky, brandy, gin or any beverage that contains alcohol; should not be out in the night air, and should not allow themselves, under any circumstances, to become angry. The disease has a tendency to make one irritable, but this condition of mind must be controlled. A fit of anger will be almost certain to induce a fit of sneezing. Every victim of this complaint can, if he chooses, cultivate a habit of becoming angry, to his own discomfiture, or of exhibiting a disposition of patience. Coughing and sneezing must be avoided if possible. The former may many times be controlled to almost complete suppression. Handkerchiefs that have become wet from nasal secretions and tears, should be put out of the room. If the expectorations are very profuse, a spittoon filled with dry earth should be kept in the room and new earth put in it every morning.

## SANATIVE MEASURES.

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### CHAPTER XVII.

#### BATHING.

The remarks hitherto stated concerning the too frequent changing of the under-clothing by delicate patients will apply equally well to the too frequent bathing of the body by them. Ablution should not be performed more frequently than the surface of the body requires cleansing, which, probably, will not be oftener than once in one or two weeks, in warm weather, and once in four to eight weeks, in cold weather. With a few it may not be necessary to bathe at all during the cold weather. As patients regain strength and flesh, oil, the natural secretion of the skin, will increase in quantity, and because of its presence, extraneous matter will accumulate on the surface faster than when they were in a weak condition, consequently they will need to be washed more frequently; nevertheless bathing should be postponed as long as is *consistent* with cleanliness, until full and healthful vigor is enjoyed.

Many patients follow the common practice of bathing as *often* as possible, instead of as *seldom* as possible. Bathing as often as possible is harmful; because washing the body, *per se*, forms no part of the *means* that is to relieve them of their catarrhal complaint. This may seem strange doctrine to many, but

I know it to be true. I have had many weakly, thin patients, male and female, old and young who bathed from once and twice a week to once daily, being convinced at the same time, that they took cold from each and every bath, but followed the practice for months, simply because they knew that it was a popular theory that bathing was healthy. Bathing is beneficial for the healthy, but it does not follow that it is healthy for the sickly under all circumstances.

Very many children are bathed so frequently that they are maintained in an enfeebled condition. If a child, who is delicate, is bathed all over once each day and has a change of all its clothing, at the same time, it will become still more delicate, have less desire to play out doors, more capricious about its food, especially if it be plain, have a poorer digestion and be very liable to stomach and bowel complaints in addition to its catarrhal disease which is sure to afflict it. All of this can be said of almost every pale, delicate, well dressed child.

The bath, and the air in the bath-room should be of such a temperature as is pleasant to the bather. Immediately after the bath, a small quantity of vaseline should be applied the whole length of the spine, from the hair of the head to the hips, then anoint the feet. The effect will be very pleasant to the back, and to the feet, especially, if the latter are habitually cold.

Not uncommonly is the opinion expressed, that *bathing in cold water is a preventive of colds.* This

is far from being true even in a majority of cases. Usually, the advocates of this plan of preventing colds are individuals in full vigor of health and possessed of a strong constitution.

On the body of the healthy, there is a superabundance of oil secreted by the skin, which is a non-conductor of heat. Such persons can take the cool bath with impunity, as there will be little danger of removing too much oil. After each bath the body will re-act quickly and perfectly. But patients who are thin in flesh and in a weakly condition, do not possess the strength necessary to overcome the sedative effects of a bath at a low temperature, nor can they loose the oil from the surface of the body without injury.

#### TURKISH AND RUSSIAN BATHS.

The Turkish and Russian baths are beneficial to patients in full flesh, while those who are in delicate health should never take them, as they rob the skin of its oil, thereby rendering them more susceptible to bad effects from sudden changes of temperature, and are generally debilitating. One, or at most two baths a week, are as many as should be indulged in by any patient. After eight or ten baths are taken, one every ten to fourteen days will be sufficiently frequent, great care being taken each time to allow the body to become cool before leaving the cooling room. I know of several instances in which a single Turkish bath paved the way for a cold so severe that



it threatened the life of the bather, because of too short a stay in the cooling-room after the bath. The opinion of a majority of my patients who have frequented these baths, is that a bather, who is liable to take cold easily, should remain at least one hour and a half in the cooling-room. Since the fall of 1876, I have recommended those of my patients who were most liable to take cold after these hot baths, to apply, just before dressing themselves, a small quantity of vaseline to the surface of the whole body. Most liked the effect of it; a few who were very fleshy, did not notice any good effect from its application, while others who were sparely built, thought it prevented them from taking cold and prolonged the pleasant and beneficial effects of the hot bath.

## CHAPTER XVIII.

### THE TEETH.

Many years experience and observation warrants me in asserting that the presence of decayed teeth and diseased gums maintain a catarrhal inflammation of the mucous membrane of the nasal and pharyngo-nasal cavities, the throat and ears. It is frequently the case that the disease can only be ameliorated while decayed teeth remain in the patient's mouth, even when they are painless. On the other hand, I have observed, in a few cases, that a catarrhal inflammation of the antrum of Highmore causes the teeth to become diseased. I think that it will yet be proven that the teeth do frequently become diseased because of excessive inflammation of the mucous membrane of the nasal passages and the sinuses.

At the first visit of a patient, I make as thorough an examination of the teeth as I do of the nasal passages. If the teeth are decayed, or the gums diseased, I not only earnestly recommend the service of a dentist, but, in many cases, insist upon it as indispensable.

A few illustrative cases demonstrate the correctness of the view that the teeth exercise no small degree of influence upon the system.

CASE I. In December 1866 Mr. H. æt. 37 years, a.

lawyer consulted me in regard to a furious tinnitus aurium. He told me that the noise in his left ear was so great as to deprive him of sleep, and the tone of so melancholy a nature as to suggest suicide as a means of relief. During the three weeks previous to seeking my advice and treatment, the symptoms had been greatly aggravated, from the effects of using a nasal douche. I made an examination of his case, and learned that he had suffered from nasal catarrh since boyhood, and that he had aural catarrh as well. After six weeks treatment, the inflammation in both organs was greatly relieved, as was the tinnitus. After this length of time the noise in the ear remained about the same, except when I tried to ameliorate it by inflation, while the catarrhal inflammation continued to improve. I did everything for his relief that was advised in the text books of the day. The more closely I followed the authors, especially observable when the Eustachian catheter was employed, the greater the tinnitus. Finally my patient observed and right strongly did he assert, that when I "left his ear alone" and mildly treated the nasal catarrh, the tinnitus lessened. Subsequently I gave the patient no treatment for a period of ten days. The result being an increase of inflammation in the nasal passages, also an increase of the noise in the ear. I treated the patient a few weeks longer and became discouraged at the unfavorable result. While in this frame of mind, I discovered that he had a number of decayed teeth, and several whose crowns were entirely gone, leaving five or six half covered roots in his jaws. As the majority of these were on the left side I advised that the fangs be withdrawn, and the diseased teeth and gums treated. The more I thought about the case, the more firmly

did I become convinced that what had at first been a mere suspicion, was in reality the obstacle that stood in the way of successful treatment. I insisted upon a removal of the teeth, and felt warranted in making a non compliances on his part, sufficient cause for a discontinuation of treatment, on my part.

Dr. Homer Judd, then of this city, a well known dentist, present in an adjoining room, was asked to be present during my conversation on the subject, with my patient. He stated that he did not know that an affection of the ear would be relieved by treating the decayed teeth, but he knew that the nerves of the teeth and those of the ears, were branches of a common nerve; that pain in the teeth frequently caused pain in the ears and vice versa; and, that as the patient's teeth were in a very bad condition, he advised that his mouth be made sound by treating his gums and teeth. This he said should be done, even though it did not have the effect of benefiting his catarrhal troubles. The patient submitted to the dental treatment and before it was completed, a marked benefit accrued to both the nasal and aural trouble, and the tinnitus, although not entirely removed, had decreased to such a degree, that in a few weeks time he was barely conscious during the day time of its presence. I have treated him almost every fall since for catarrhal trouble, but the ear symptom has never given him serious annoyance.

Since this experience I have not omitted to examine the teeth and gums of every patient. In many instances I believe my course of treatment has been greatly shortened, and rendered more permanent by the beneficial effects of the dental treatment on the general health, as well as on the local trouble.

Many additional cases could be cited, if necessary, to prove the correctness of this view. The following statements of patients are appended, because the symptoms are rare and show more fully the relationship between the teeth and the other organs of the system.

CASE II. Mr. J. C., æt. 42 years, consulted me in January, 1867 in regard to catarrhal trouble. The treatment was so far successful that at the end of four weeks time he experienced but little annoyance from the complaint. Considering himself so much improved he discontinued treatment for a few weeks when the original trouble returned. I had failed to make a careful inspection of his teeth, for the reason that he wore an artificial plate. However, as I began to search for the cause of the return of the discharge I discovered that he had several roots of teeth, under the plate from which there was a continual discharge of pus, and learned that at such times as the catarrh was most troublesome and he had neuralgia in the head, his teeth were painful. I advised the immediate extraction of the teeth, and the patient readily consented. The effects were all that were anticipated and his neuralgia seldom troubled him afterward.

CASE III.—Miss G. W., æt 22 years, a singer in one of our church choirs, was treated in March, 1876, for naso-pharyngeal catarrh, and for impairment of her voice. On the first visit I noticed that her teeth were in a bad condition, and advised that she secure the services of a dentist. She promised to do so but from fear and natural dread of the pain occasioned, she deferred attending to the matter. The treat-

ment relieved the catarrhal trouble, but the inflammation of the vocal cords was but slightly ameliorated. Becoming discouraged at the success attending the treatment, she left me and secured the services of another physician, who treated her for several months with like results. In the Spring of 1877, she again visited me for treatment. I again insisted that she procure the services of a dentist: she complied and catarrhal treatment, continued for six weeks, gave results quite satisfactory.

CASE IV.—Mr.—, minister, æt 52 years, in May, 1877, requested treatment for hoarseness. During his visits he mentioned, casually, the fact that if any food became impacted between the first and second molar teeth of the lower jaw, he felt impelled to clear his throat by hawking. On one occasion a small piece of fish bone became fastened between these teeth. He made frequent unsuccessful efforts at its removal, which resulted in rendering him completely aphonic for two days time. The removal of the bone relieved him of the throat trouble entirely, and in a few days time his voice returned with no other treatment whatsoever.

CASE V.—Mrs.—, æt about 32 years, stated in October 1877, that frequently after contracting a bad cold, she had attacks of palpitation of the heart, also that during a period of three years past, she had at no time recieved dental treatment without giving rise to palpitation. On one occasion, being compelled to leave a tooth half filled, so severe was the attack of palpitation.

CASE VI.—Miss—, æt 19 years, told me in March, 1878, that during the past two winters, she always had pain in the left arm if she attempted to bite any hard substance; as an attempt to crack a fil-




bert or a hazel nut, on the left side of her mouth. The pain in the left arm was in every respect similar, to the pain not unfrequently experienced by patients who have a severe catarrhal inflammation in the left nostril.

CASE VII.—Mr.—, æt 42 years, in Dec., 1879, desired treatment for a continual clearing of the throat and occlusion of the nasal passages. He also had skin disease on one side of his face. Local and constitutional medication had the desired effect upon the throat and nasal passages, and the eczema was also ameliorated. As the patient had defective teeth in his mouth, I recommended he engage the services of a dentist to remove them.. Dr. A. H. Fuller of this city, extracted the roots of nine teeth. In two weeks the eczema was nearly well, in one month more there were no signs of it.

The following case is in striking contrast to the foregoing. It shows, not the beneficial effect of the dentist's work, as there were no decayed teeth to be removed, but the effect of irritating the teeth, by even one of the most cautious dentists.

CASE VIII.—Miss R., of Quincy Ill., professor of elocution, was treated in April, 1880, for paresis affecting one of the vocal cords. The case progressed as favorably as could be expected for several weeks, at the end of which time she had a number of teeth filled with gold. The filling was accomplished at intervals, extending over a period of several weeks, when she sat for three consecutive days in the dentist's chair. The result was a severe hoarseness and a relighting of nearly all the inflammation that had been reduced by the treatment. The irritation subsided in about ten days.



She subsequently took a very severe cold, but fortunately it affected the vocal cords but slightly, showing that the irritation occasioned by filling the teeth, produced a far more injurious effect on the still partially paralyzed and inflamed vocal cord, than did the subsequent severe cold.

## CHAPTER XIX.

### APPLICATION OF OIL TO THE SURFACE OF THE BODY.

Catarrhal patients who are thin in flesh, and whose skin is dry and rough, are liable, because of this dry condition, to take cold easily during the seasons in which there are sudden and great changes of temperature. To such, I have prescribed an inunction to the surface of the entire body. The benefit derived, is an increase of warmth in the body and a decrease of the cold rigors that trace up and down the back.

The beneficial effects following inunction are a little more marked in children than in adults, from the fact that they are applied by a second person with more regularity and a greater degree of thoroughness.

I was first led to experiment with these inunctions, in 1859, after reading an article written by the late Sir James Y. Simpson, of Scotland. He contributed the results of his investigations on the "Eternal use of Oil," to the *Edinburgh Monthly Journal of Medical Science*, Oct., 1853. This paper is republished in his work on "Obstetrics." Second Series, page 441.

From the extensiveness of his observations, and the very satisfactory results following the application of oil externally, I resolved to try it for the amelioration of a case that I then (1859) diagnosed as acute.

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phthisis. The effect of the applications was all that could be desired. The profuse night sweats were at once lessened, and, after the fifteenth nightly inunction, entirely checked. The patient slowly recovered, made a trip to Pike's Peak—at that time a place of great attraction in the West—and is at present living in Wisconsin, in robust health.

I recommended several other patients to employ inunction. When they could be induced to use it as directed, the benefits were marked. But the impossibility then of obtaining an oil, the odor of which does not become exceedingly offensive, compelled me to desist from prescribing it, except in cases of children. They remain in the house, and the disagreeable odor offends the olfactories of the parents only, who are ready to endure any discomfort themselves, if it lead to the recovery of their child.

We have now an article known as vaseline, one of the residua of petroleum, which is inodorous, and remains so while on the body, and may be applied to the most delicate skin, not only without causing discomfort, but producing really a pleasant sensation. The time for a revival of the practice of inunction has arrived, and need not be again driven into obscurity, because of the offensiveness of the remedy applied.

I think the most appropriate manner of again drawing the attention of the profession to the advantages of inunctions to the whole surface of the body, *is to reproduce as much of the original investigator's*

paper, as will show both the history of its origin and the results of its practice, as achieved by him.

The whole article is so decidedly practical, and written in so connected a manner, that it is difficult to quote from it, without impairing, to some extent, the force of that which is quoted.

In this article he says that his attention was called by a medical friend, "to the healthy and robust appearance of the operatives in the woollen manufactories. The operatives themselves attributed the immunity which they enjoyed from consumption, to the free external application of oil to their bodies, which occurred in various parts of the manufacture of woollen fabrics."

In making further observations on this subject, he found that the same immunity exists in other woollen factories. Another medical friend writes to him in the following terms: "I find the opinion is very general, or rather universal, that the employment is remarkably healthy, the workers being rarely, or never known to suffer from consumption or other chest affections, such as coughs, bronchitis or asthma."

Dr. Wilson, of Iwerness, writes to him that "it is a popular notion that the workers employed are peculiarly exempt from phthisis and scrofula. The proprietor and manager of the mills inform me that delicate and weakly children improve after admission to the works."

Dr. Joseph Bell, one of the medical inspectors of Glasgow, writes to him as follows: "There is no doubt in my mind, that workers in our woollen factories are more robust, florid and healthy looking than

those employed in our cotton factories. I have seen several workers enter the woolen factories, pale and emaciated, having been previously employed in cotton mills, become, in the course of a few months, fat, ruddy and in every respect contrasting strongly with their feeble, sickly appearance when I first saw them. One woman who labors under bronchitis, informed me that she is obliged to work in a woolen factory during the winter and spring months, as otherwise her cough and dyspnoea becomes intolerable. I have examined two other females who exhibited symptoms of incipient phthisis, but after working a few weeks in the wool-mills, these symptoms disappeared and their general health became excellent."

Dr Simpson received from other physicians, letters of the same purport.

As to the cause of the comparative exemption, some have attempted to explain that it was their hygienic state that was the possible result of their healthy condition, or their exemption from chest complaints, or that it was attributed to the sanitary nature of the factory labor itself.

These two supposed explanations he examined carefully, and concluded as follows: "In other words, the multiplied testimony adduced regarding the health of the workers at the numerous cotton factories of this country, shows that the mere nature of the work at the mill produces no immunity in those employed from consumptive and tubercular affections, and consequently, it follows, that if in any variety of mill-working, such an exemption was found, this exemption could not be ascribed to the mere character of the factory labor or mill-work itself. And when



we find that, while the cotton mill-workers are not free from consumption and struma, the wool mill-workers are comparatively exempt, we must evidently search for the cause of this difference and exemption in some peculiarities connected with the wool-making itself.

"The great difference and peculiarity in woolen-mills, consists in the fact that while the hours, the occupation, etc., are much the same in each, in the woolen-mills a very large quantity of oil is used, and the bodies of the workers are brought in various ways freely in contact with it. It is, I believe, in this one item that the great difference between cotton-working and wool-working consists; and it is to this material, the oil, as freely used in some of the processes of the wool-factories, that the operatives themselves universally, and, as I believe, properly attribute the salutary nature of their occupation.

"In corroboration of the truth of this popular belief that the good effects of the woolen-factory labors are ascribable to the oil employed, I have to state two points, viz.: that,

"1. Similar exemption from scrofula and consumption is observed in other classes of workmen whose employment brings them in the same way, freely in contact with fats or oils, as tallow chandlers, oil men, etc., and,

"2. In the wool-factories the degree of exemption among operatives themselves, is by no means equal in all the processes of the manufacture, but is regulated by the more or less oily nature of the departments of work in which they are engaged in the mills; so that they in general, markedly improved in appearance and health when set to work at the more oily pro-

cesses; and often as markedly decline after leaving them."

This is followed by giving the weight of some of the workers at the time they commenced to operate in the more oily employments, and weighing them again after having been at work a few months, showing a very marked increase.

"The fine appearance," he adds, "of the young workers, their rapid improvement when set to work in oil, their declension when they discontinue it, leave no doubt on my mind that the oil is the salutary agent."

In mentioning the mode or channels by which the oil may enter the system he says: "Under such circumstances, we may suppose the oil to enter the bodies of the operatives by one of two channels, either by inhalation through the mucous membrane of the lungs, or by cutaneous application and absorption." He concludes on this point, that, "In all likelihood the more important, if not the only channel by which the oil gains access to the system, in the case of the woolen operatives, is by its cutaneous application." "In the living human subject, we can readily gain clinical proof of the facility with which warm oil can be rubbed into the skin, by watching the rapidity with which the liquid disappears from, and is absorbed from the surface of those who use oil-frictions, and particularly in the case of such persons as have followed the practice for a considerable time, and in whom the power of cutaneous absorption is hence increased. Besides, we have a further proof of this cutaneous absorption of oil, in the fact that those who use oil-frictions, show exactly the same special consti

tional effects from this mode of introducing it, as those who introduce oil into the system by swallowing it."

Of the systematic oil-inunction as a medecinal measure, he says: "In tubercular and other cases, these effects are sometimes as distinctly, though perhaps not as frequently, obtained from the external inunction of olive oil, as by the swallowing of cod liver oil. I have seen a similar amelioration in the constitution and local symptoms of the malady, and a similar improvement in the general health occurs under one as under the other practice; one may, if necessary, be sometimes temporarily substituted for the others; or both employed at once when there is no contra-indication to their combined and more certain action. *The restoration of the function of the skin, and the suppression of the hectic perspiration more rapidly and surely follows external inunction.* The increase in the weight of the body, which has been so much and justly insisted on as a favorable sign under the internal use of cod liver oil. In a case in which the increase was specially watched, under external oil-inunction alone, the patient, who was carefully weighed, in forty-two days, increased twenty-four pounds in weight, a rate nearly as high as any, I believe, ever observed to occur under the employment of cod liver oil internally. This patient's stomach could not retain cod liver or other oil in any form that was tried. I have seen a child two years old, increase in weight an ounce a day, for eight weeks, under assiduous oil inunctions, its stomach having for some time previously rejected oils and most other food, when swallowed. And in the external use of oil, increase in weight obtained, is often

greater than the mere weight of the oil introduced into the system."

In mentioning the disease and circumstances in which oil-rubbing is indicated, he says: "Inanition, by whatever cause produced, and particularly when dependent on mal-nutrition or mal-assimilation, and combined with *a dry and disordered state of the skin,*<sup>1</sup> the practice is often most advantageous." \* \* \*

*"The practice itself guards weak constitutions against the effects of changes of temperature and weather; and the feeling of cold and tendency to catarrh and chilliness,"*<sup>1</sup> attended upon various debilitated states, is sometimes arrested and averted by oil-inunctions."

He recommends that the oil selected be bland and inodorous: that it be applied moderately warm, and with a considerable amount and duration of friction; that the oil and friction should be applied to the whole cutaneous surface of the trunk and extremities, using "about a wine-glassfull of oil; that the application may be practiced twice or oftener in twenty-four hours, especially with children; that the best time for a single daily oil-inunction is immediately before retiring to bed, and that to save the bed-clothes, the patient should sleep in a dress of flannel, cotton or other material that stretches beyond the feet. He also advised that the body be sponged with tepid water, immediately before the application is made."

The greater hindrance to this mode of treatment was, as I have already stated, the impossibility of procuring an oil that was inodorous. I think this must be the only reason why Dr. Simpson's suggestions

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1. Italicized by the Author.

have been for so many years disregarded. Happily this objection is now removed. We have in vaseline an article that is perfectly inodorous and is not liable to become rancid on the body, as do other oils and fats. An objection to be urged is its tediousness, fifteen to twenty minutes being necessary to devote to the inunction.

The best means to employ for application is a woolen rubber, made by sewing ten or twelve layers of flannel on the faceside of a cotton or woolen glove; by slipping the hand into the glove, the application is more easily made than by any other means. After it is once saturated from the repeated inunctions, a teaspoonful of vaseline spread on the rubber and held close to the fire until quite hot, will be sufficient for one application, which should be made briskly and with a considerable degree of pressure.

The temperature of the room should be about 90° F., all the clothing of the patient should be removed except the stocking-knit drawers and stockings. The exposed portion of the body and arms should be well and briskly rubbed with the hot woolen rubber, into which the vaseline has penetrated, for from seven to ten minutes on an adult, and half this length of time on a child. After this portion of the body has been anointed, the stocking-knit undershirt should be put on. The drawers and stockings should then be removed, and the remainder of the body treated in the same manner, occupying about the same length of time.



Persons thin in flesh feel, immediately after the application, a sensation of warmth pervading the whole body, the feet and hands included; but more particularly so if these members have been habitually cold. Chills that course up and down the back between the shoulders are arrested, night sweats abated and very many times soon disappear entirely.

The effect of the friction is to redden the surface by increasing the circulation, which induces a temporary warmth of the body, but I believe it is due to the inunction that the warmth is made permanent. I have had my patients try the following experiment, and it indicates that the permanency of the warmth is due to the presence of the vaseline, viz.: To rub one extremity with a hot flannel alone, and another with a hot flannel saturated with hot vaseline. The extremity upon which the application of vaseline was made, remained warmer during the day than the one rubbed with the hot flannel only.



## CHAPTER XX.

### STOP YOUR COUGHING.

"Stop your coughing! You cough fully twice as often as you need to do." If patients will resist the tendency to cough and endure the sensation that seems to cause it, they will soon notice they may reduce the number of coughs from one-half to two-thirds, and then when they do cough, they will be enabled to raise sufficient secretion from the throat to slightly relieve it of the sensation that is partly the cause of the cough.

I am satisfied, from many year's observation, that the sensation that first induces the cough, arises from irritative inflammation located behind the soft palate, fully three and a half inches above the place of sensation in the throat.

It is evident that even if a throat is healthy and an inflammation, three and a half inches above it, causes a persistent and frequent cough, this cough could not last many weeks without occasioning so much irritation in the throat, that it also would become diseased, and it is also evident that the sensation in the larynx, caused by a distant irritation, cannot be relieved by frequent coughing, nor will the

cough relieve the irritation located up behind the soft palate, as it has not the least effect upon the irritated spot. This shows the great importance of controlling, to suppression if possible, a non-relieving cough. There is far more probability of an anodyne application relieving a little finger that is benumbed by a blow on the elbow, than that a cough would remove the sensation in the throat that is caused by an irritation due to inflammation or to a lodgement of a secretion behind the soft palate.

I have known patients cough, on an average, ten times every five minutes for two hours in the morning, making two hundred and forty spasmodic efforts to relieve the throat of tickling sensations. Now, this is tiresome to a weak individual and the relief of one-half of their efforts may be sufficient to prevent the throat from becoming inflamed and thus prevent the lungs from being implicated in the disease. If a healthy individual will cough two hundred and forty times in two hours every morning—not to take into account the very frequent coughing through the day that is done by every such patient—he will, in a few weeks have his throat so highly inflamed that he may require medical aid for its relief.

A good method to help one to control the cough, is to mark each cough on a card, preserve this card and endeavor to decrease the number of coughs each day. I have known patients to decrease these efforts 75 per cent. One patient coughed one thousand and eighty-five times on the first day's tallying, on the

next day she coughed four hundred and fifty times, on the next, only two hundred and twenty times. This may seem to some to be trifling work, but the result is *always* beneficial to the cough and to the strength of the patient. Some patients have tried to control the cough without marking each effort down, but they are not certain as to the degree of decrease or increase of the cough; there is no doubt but that a patient will be more certain of success in controlling his cough if he marks every effort on a piece of paper; under these circumstances the mental effort will greatly assist in resisting the sensation of tickling in the throat.

## EARTH SPITTOONS.

The secretions from the air passages of every catarrhal patient are decomposed before they leave the mucous membrane. If they are deposited in a common spittoon or vessel, the decomposing process will not only continue but take place far more rapidly, especially if the room is kept warm. Besides being exceedingly disagreeable to the eyes of every occupant of the room, it is very injurious to the patient, who requires pure air, and to others in the household. All this may be obviated by an *earth spittoon*, it will not only absorb the secretions but immediately prevents their further decomposition. A vessel containing five pounds of earth will absorb out of sight all the secretion that a patient is able to expectorate in twenty four hours. It should then be emptied *and refilled with fresh earth*, which is very easily done.

## MISCELLANEOUS.

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### CHAPTER XXI.

#### THE COMMON NASAL DOUCHE, OR WHAT PHYSICIANS CALL THE WEBER NASAL DOUCHE, IN THE TREATMENT OF CHRONIC NASAL CATARRH CONDEMNED.

Although it is well known to physicians who have made a study of catarrhal disease of the nasal passages, that this douche is a dangerous instrument, often affecting the ears so that deafness ensues therefrom; yet because the medical profession generally have for many years recommended it for all kinds of nasal troubles, patients have come to consider it economical as well as beneficial to employ it. For this reason I will discuss its merits and demerits at some length; giving my reasons why it should not be used by any person under any circumstances.

It will be seen that not only are the ears dangerously affected by it, but other cavities in the head are brought into a diseased condition also; such as the antra of Highmore, and the ethmoidal and sphenoidal cells and the frontal sinuses. These cavities cannot be long affected without involving the mental faculties of the patient. It is needless to urge here that this is a most important matter to sufferers from nasal catarrh, who contemplate using this means of self treatment.

As the nasal passages are to be cleansed of a secretion that is in an encrusted condition, the adherence of which resists the utmost efforts of the patient to free himself of it by blowing his nose, it is evident.

to every person that there are *three* requisites the douche should possess, namely :

First, it should be effective without causing the least irritation.

Second, it should make direct application to every portion of the diseased surfaces within the nasal and pharyngo-nasal cavity.

The correctness of second requisite is obvious at first sight, and is always conceded when stated yet, strange as it may appear, this apparatus has never been able to accomplish this; nor has twenty years of ineffectual employment taught many of the profession its uselessness. This is proved by the fact that many persons are, at the present day, using it at the recommendation of medical men of high standing.

The third requisite of the douche, is, that it should possess force enough to remove the crusts and thickened secretion from the diseased surfaces.

As intimated above, I deny that this method possesses these requisites, and propose to now prove the correctness of my assertion.

Dr. Thudichum of London re-introduced this method to the profession; for this reason it is sometimes, though erroneously called Thudichum's nasal douche. In one of his articles, published in the *London Lancet*, 1864, he says: "All difficulties are removed at one stroke by the discovery of Prof. Weber of Haile (Germany). When one side of the nasal cavity is entirely filled through one nostril being filled with fluid by hydrostatic pressure, while the patient is breathing through the mouth, the soft palate completely closes the choanæ, and does not permit fluid to pass into the pharynx, while the fluid passes into the other cavity, mostly around and over the posterior edges of

the septum narium, in some persons also the frontal sinuses, and escapes from the other open nostril, *after having touched every part of the first half of the cavity of the nose,\** and a great part certainly of the lower and median canal of the second half. By means of the application of this principle to the treatment of diseases of the nose it is possible easily and frequently to wash the nasal cavity, to disinfect and deodorize it, and to apply to its surface a great number of beneficial medicinal substances, so as to prevent acute affections from extending, and to incline them toward a speedy recovery, to stop hæmorrhage, allay irritations and subdue in a remarkable manner chronic affections of the Schneiderian membrane, so as to re-establish a perfectly healthy surface and normal condition of the organ of smell."

Such promises should be the expressions of an individual possessed of a positive knowledge that they would be fulfilled. The high authority of the periodical in which the article appeared; the apparent philosophical style in which it was written, seemingly the assertions of one who had seen the method *do* all that was claimed for it, raised high the hopes of both practitioner and patient, and gave a guarantee of a cure.

It seems to me remarkable that so large a number of contributors to our journals, and nearly every author in his work, devoted either wholly or partially to diseases of the nasal cavities, should have accepted as undoubted the assertions contained in the *paragraph* quoted.

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\* *Italicized by the author.*



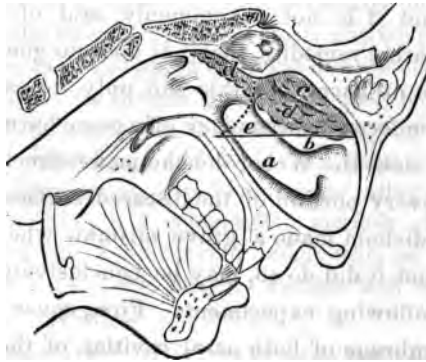
Now let us carefully examine this popular, but, what I believe to be, a most unphilosophical means of cleansing, to see if it possesses the three requisites mentioned in the beginning of this chapter.

There is no doubt as to its possessing the first qualification. That it does not, of itself, produce irritation is one of the good features its friends urge in its favor, and it is not uncommonly said of it, as of homœopathic remedies, that if it does no good, it will surely do no harm, but this can only be said of its primary effects, its secondary effects are harmful.

Next, does the Weber douche make direct application to every portion of the diseased surface? That Dr. Thudichum made a grave mistake when he asserted that it did do so, may be conclusively proven by the following experiment: First, cover the mucous membrane of both nasal cavities, of the person upon whom the experiment is to be tried, with finely powdered starch, by insufflation, both in front and from behind the velum palati; next incline the head forward, as recommended by Thudichum, and pass a weak solution of iodine and iodide of potassium through the nasal passages by means of this douche. The iodine solution will either discolor or wash away all the starch within its reach; the discoloration will be the characteristic blue of iodide of starch. The effect of the washing may be seen by reflecting natural light upon a pharyngeal mirror, placed under and behind the pendant soft palate, and by inspection through the anterior nares. The washed or discolored

portion of the mucous membrane will show that the greatest height reached by the iodide solution, in the antero-superior portion of the cavity, was only a little above the anterior extremity of the middle turbinated process, (*b* Fig. 7) and that only that portion of the

Fig. 7.



Antero-posterior section of the head and face, showing the turbinated processes *a, b, c; d, d*, the location of the encrusted secretions in the highest portion of the nasal cavity; *e*, the height that the water attains in the nasal cavity while using the Weber douche while the head is inclined forward. The dotted lines indicate the position of the posterior border of the septum nasi.

cavity lying below a line drawn from this point to the lower surface of the posterior nasal opening, is washed; all the surface above and posterior to that line (*d. d.*) is not washed, the uncolored starch remaining plainly in view. In other words, the solution flowing into the nasal cavity, will rise until it reaches a level that is on a horizontal line (*e.*) with the inferior surface of the posterior nasal opening of the side into which the liquid was introduced; then,

instead of rising higher, upon the introduction of more fluid, it will flow around the posterior border of the septum narium (dotted curved line, Fig. 4.) over that portion of the soft palate which joins the hard palate, into the other nasal opening, and thence out through this passage.

Thus it will be seen that instead of "touching every part" of the cavity, as asserted by Dr. Thudichum, only a little more than the lower half of it is touched, and it is that half, too, which is very rarely incrustated, seldom requiring cleansing or treatment. The upper half, the region whence all the secretions flow, that find lodgment in the inferior portion of the passage, remains untouched, and hence, uncleansed. In the other nasal passage, the floor only is washed, and not the middle meatus as Dr. Thudichum declares.

It is a mistake to suppose that the elevation of the soft palate against the posterior wall of the pharynx will cause the fluid to rise higher in the nasal cavity, than has been stated, because the liquid has still the same avenue for escape, namely, around the septum nasi and through the other posterior nasal opening.

Nor can the nasal fossæ be filled by the closure of the other nostril. This act will cause the liquid to rise a little higher in the nasal passage, but before it is nearly filled, a part of the fluid will flow upon the upper surface of the soft palate, its presence upon this sensitive organ will occasion involuntary deglutition, instantly followed by partial strangulation, or chok-

ing, because of the liquid falling into the open larynx.

It will appear manifest to all who have studied the anatomy of this portion of the head, that it is not the elevation of the soft palate, nor the closure of this passage into the fauces, nor the closing of both nostrils, but the position of the head of the patient that governs the amount of surface touched by the water. The nasal cavity, while the head is in an erect position, will not retain a liquid any more than a tea cup while lying on its side, but the more the head is inclined forward, or until the posterior border of the septum nasi (see dotted curved line Fig. 4) is placed in a horizontal position, the greater the amount of liquid retained in the nasal cavity. But should this douche be used while the head is held in this position a far more serious inflammation will result in other cavities of the head, than in the one being treated, for a part of the irrigating fluid, in which there is dissolved secretion, will pass into the antrum of Highmore, and a part into the frontal sinuses, through openings under the turbinated processes.

As the irrigating fluid from the Weber Nasal Douche does not touch that part of the nasal cavity in which the greatest amount of secretion is lodged, it does not, therefore, possess the third requisites. These hardened masses form in the neighborhood of the superior and middle turbinated processes, and are remarkable for the tenacity with which they adhere to these surfaces. If the stream could be thrown

with sufficient force to reach these localities, instant, involuntary deglutition would take place. I have a few times used two and even three gallons of fluid to effect this purpose, and then, the time required for the passage of that amount of fluid was not sufficient to soften and remove that portion of the hardened mass, with which it came in contact. During its passage through the cavities the healthy mucous membrane will have absorbed enough of it to cause a narrowing of the passages to such a degree that the patient will be compelled to breathe through the mouth. Several such applications, will produce so great a degree of tenderness, that the least exposure to a cold atmosphere will likely induce an attack of acute catarrh in portions of the membrane heretofore unaffected.

I believe I have plainly demonstrated the inefficiency of the Weber Douche; yet I will show, in addition, that it produces an injurious effect upon every patient who uses it, by insidiously extending the inflammation to unaffected parts. In some instances the ill effects manifest themselves suddenly and severely, but the number thus affected is remarkably small in proportion to the large number who have used and are daily using this instrument. A member of one of the largest firms for manufacturing surgical instruments, informed me that not less than 25,000 of these douches were sold annually.

One of my patients began using this douche in March, 1871, employing it as a means of cleans-

ing, from one to three and sometimes as high as four and five times daily, very rarely passing an entire day without its use; making in all a total of about three thousand applications. Twice, during this period, he experienced painful sensations in his ears; and on four or five occasions a pain in the left cheek, showing that the left antrum of Highmore was injuriously affected by it.

I have seldom treated a catarrhal patient who has not, in the endeavor to be rid of the disease, used this douche a great many times. Yet I have heard few complaints entered against it, because of a recognized injury received. So small, indeed, is the number who experience injury to the ears or sinuses from its employment, that in my opinion, were the method as effective as claimed by Dr. Thudichum, its use should not be interdicted on account of the occasional bad results therefrom.

I do not condemn the use of this instrument, because in a comparatively few cases out of thousands who employ it daily without instructions or warning, it originates an acute inflammation, *but because of the injury done to the healthy surfaces, without at the same time benefitting the unhealthy or catarrhal surfaces.* This is a *double fault*, for which the profession should condemn it.

The application of water or any fluid to the nasal cavities, is always productive of more or less injury to the healthy mucous membrane. But if by its application, vitiated and irritating secretion is removed,



which removal could have not been accomplished without its aid, the injury the healthy membrane receives is counter-balanced by the benefit accruing from the cleansing of the inflamed membrane. The danger to be most dreaded is the susceptibility of the healthy membrane, after these frequent absorptions, to catarrhal inflammations; and should deter every one from employing this method. I am certain that fully ninety-five per cent. of the cases coming under my observation, have not only maintained their catarrh, but have caused the inflammation to extend to other parts of their nasal passages, as well as to neighboring cavities by the use of this douche.

Dr. Roosa's experience, given in his work on The Ear, in regard to the liability of extending catarrhal inflammation by the use of this douche, corresponds almost exactly with my views previously stated. He says: "As early as 1869, I had found that the nasal douche was sometimes a troublesome and dangerous appliance, and I added a note to indicate this in my translation of Van Trœtsch on the ear, [second edition, page 369,] but I was not fully convinced that it would readily cause acute antral inflammation, until the following case occurred in my practice. \* \* \* Besides, as it is believed by many otologists, it is possible that the douche sets up a chronic inflammation of the tympanic cavity, without any acute stage, and thus the true cause of an insidious chronic catarrh is passed over and supposed to be an advance of the naso-pharyngeal inflammation. Of course it is not believed by the author that the use of the nasal douche *will necessarily* cause disease, but that it is a danger-

ous means of treatment which should be carefully watched by the practitioner."

Dr. L. Turnbull is a strong advocate of this method of treatment, yet it is evident that the facts he records in his work on *The Ear*, also agree with what I have said. He says: "There are some important cautions to be observed: first, the fluid must be of the temperatnre of the body [about 96°]; second, the patient must breathe gently with the mouth open; and lastly, must not swallow, else the fluid will pass into the middle ear and cause the following results, well told by a patient in the following letter from Frederica, Deleware:

'MY DEAR SIR:—I find on using the nasal douche, as recommended by you, that it affects me somewhat unpleasantly. I find no difficulty in passing the water as directed from one nostril to the other, or back into the throat. On passing the water into the throat the Eustachian tubes apparently are also filled, and give the same sensation I have experienced when a boy, in swimming, and what we used to call "bubbles in the ear." I cannot free my head of the water taken in for some four or five hours after using the douche. I then feel as if I had taken cold. My ears feel sore, pressing the tips of the fingers into the external ear causes a dull pain, apparently about the drum of the ear. This passes off in about twelve hours. I am much more deaf than usual for some hours after using the douche. Yours Respectfully,

J. R. H.'

"To this form of medication there are some other objections which have been made by Professors Roosa and Knapp, viz: that otitis media may supervene, and perforation of the membrana tympani be caused by excessive sneezing, the result of using the douche; *but no such results have followed the extensive use of this most valuable means employed by the author.*

in hundreds of cases, both of ear diseases and of *oxæna* with or without deafness.”<sup>1</sup>

No stronger condemnation could be given, than this patient has given in his letter, and instead of its being a most valuable means, as claimed by Dr. L. Turnbull, the experiment with the powdered starch and iodine solution demonstrates that it is really valueless, except as to its power to remove the secretions that occlude the inferior portions of the nasal passages, enabling one to breathe with some degree of freedom. It is because of this relief afforded, and the pleasing effects of the warm liquid, bathing the inflamed surfaces, that patients express themselves pleased with the method. I have noticed, too, that patients making such expressions are almost invariably of a class whose nasal cavities were plugged by inspissated secretions, and who suffered in consequence of the heat arising from the inflammation, and not from that class whose catarrhal complaint allowed a free passage for breathing.

Commonly, physicians in reporting the favorable results attending the application of this douche in a very bad case, say, as Dr. Thudichum said: “It is really suprising what an amount of sordes will sometimes be removed from the nose by this rinsing process,” or “that great masses of hardened, offensive secretions are washed out, and that this relieved the patient of an ever present weight in the head.” Such

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1. *A Clinical Manual of the Diseases of the Ear.* By L. Turnbull, M. D., Philadelphia, 1872.

expressions as these might lead the readers of the report, as it led me, to presume that if this method of treatment would produce so marked, so beneficial a result upon so bad a case, it would certainly cure one that was but slightly affected. But the fact is, that so far as relief and cure are concerned, the very reverse of this is true; the cases of catarrh, with profuse discharge, are relieved but not cured, and those but slightly affected, are injured without being afforded any relief.

That this method will remove the secretions formed in the inferior and anterior portions of the cavity, is not denied, but this is all that it will do; its usefulness ends here. This removal permits the patient breathing room only, the disease is not even checked. The more important part of the treatment that is to cure the complaint, consists in the complete removal of the unhealthy secretions from every portion of the cavity, which this douche cannot do. The superior portions of the cavity are those most necessary to be cleansed [*d. d.* Fig. 4.] as the disease originates there, consequently there are always accumulations on these surfaces, however slight the catarrhal affection may be. There are many patients, severely afflicted ones too, in whom the lower portion of the passages is entirely clean and healthy. These persons will be injured by daily applications of water even in small quantities.

I will now relate a part of my experience in the employment of this douche, that I may be enabled to

give the history of the circumstances which led to the discovery of its inefficiency.

In January, 1863 while located in the U. S. Gen. Hospital, at Jefferson Barracks, Mo., I had two patients under my care who were suffering from nasal catarrh. I directed them to wash the nasal passages with various solutions, using, as a means, a Matison soft rubber syringe. Other patients noticing the applications, requested treatment for a similar complaint. During this year and the one following, I treated, or attempted to treat, in all, sixty-eight patients. The failure to more than maintain a passage through the nostrils, added to failures that occurred years before on a large number of patients similarly affected, induced me in January, 1865, to open a correspondence with a class-mate in Boston, who had recently visited the hospitals in London and Paris. From him I learned of Dr. Thudichum's article on a "New Mode of Treating Diseases of the Cavities of the Nose," which appeared in the *London Lancet*, of November and December, 1864.

These articles contained a full description of the Weber Nasal Douche, and gave a list of remedies to be used. Their tone was so confident and so assuring that I was ready to conclude with my friend, that at last we had the means of combating this complaint, which had heretofore baffled all endeavors. At the time I received the two numbers of the *Lancet*, I had six cases of nasal catarrh in my ward. So cer-

tain was I of curing them by this method that I wished I had sixty instead of six cases.

The patients at first were greatly pleased with the effects of the washing, and I could see that the prominent symptoms were abating.

After a few week's treatment, I noticed that it was only those patients whose nostrils were filled with sordes during the night, that continued to give favorable reports. About four months after, one patient, on whom I had made applications with the douche, refused to have it applied, because as he claimed, it caused intense pain in the left side of the face, in the upper jaw and also in his forehead. Soon after this, another patient informed me that it produced nearly the same effect on him, and moreover, that the secretion from his nose and throat were more profuse than at any time during his life, his catarrh being but a slight one when I commenced to douche him. The first patient injured by the washing, had an inflammation of the antrum of Highmore, on the left side. He insisted that the douche caused it, but I did not think so at the time, because, on examining his teeth, I found that the second upper molar, whose fang sometimes penetrates into the antrum, was decayed. I treated the diseased antrum through the opening made by the tooth. The case, so far as the diseased sinus was concerned, recovered in about five weeks.

As I considered that the decayed tooth originated inflammation of the antrum, I recommended that the *patient* allow me to use the douche again. He did



so, and I had made but four applications, when a severe inflammation of the antrum again ensued. From this attack he recovered after about two months close attention with careful treatment. The second patient who had an inflamed antrum recovered without any special treatment. I merely let him alone; the catarrhal symptoms also improved upon non-interference.

I discovered about this time, that while the douche could be used with good effect upon those patients who had a profuse discharge from the head, it proved injurious to such as had but a small quantity of secretion, and that in a fluid condition.

In order to ascertain the reason, for the difference in the effects produced by the same treatment, I made a post-mortem examination of a man who had died suddenly of paralysis. He had had a profuse catarrh, and had been treated by means of the douche for about three months; having had daily applications made for about ten days, after which time, every other day. This treatment afforded him great relief when first employed, and he expressed himself as certain it would ultimately effect a cure. Notwithstanding he had been regularly douched for three months, and his head (according to request) washed out about six hours before his death, I was astonished to find, during the post-mortem examination, that the posterior portion of the superior half of the nasal cavities (*d. d.* Fig. 4) was incrustated with old and exceedingly offensive secretion.

*Having made an antero posterior section of the*

head, I cut a large opening in the septum nasi and placed over it a piece of window glass large enough to cover it; then I inclined the half-head forward, as recommended by Thudichum, inserted the rubber tube into the nostril and caused water to flow into the cavity, in the same manner that I had done in the treatment of my patients. Through the glass septum, I saw that the water was maintained in the cavity at that height which was on a level (*c.* Fig. 4) with the lower portion of the side douched, and that it could not wash the superior and posterior portions of the nasal and pharyngo-nasal cavities, (*d. d.* Fig. 4); washing the inferior and anterior portions only (*a. b.* Fig. 4). This experiment at once solved the mystery, as to how this form of treatment produced beneficial effects in cases of profuse catarrh, while never checking the formation of purulent secretions either in cases of a severe type or in mild ones. I had then used the Weber Douche for eight months, (Sept. 1865), making from five to twenty applications with it every day, and had thoroughly satisfied myself that it had gained its reputation because of the relief or benefit afforded those patients only, who were suffering from profuse secretions and large incrustations.

As the medical journals continued to praise this method, as the best means known for alleviating bad cases of this disease, I continued to use it until June, 1866, at which time I had two patients (I was then *in private practice*) whom I injured by its use. One

of them suffered so intensely from otitis media that I perforated the membrana tympani; the other had an inflammation of the antrum of Highmore. At this time, partly at the suggestion of a patient, I began to recommend the inhalation of water from the palm of the hand (described in a previous chapter,) instead of using the douche. In September 1868, I treated two cases whose ears were injured from the use of the Weber Douche. At this time I called the attention of the St. Louis Medical Society to the deficiency of this instrument, demonstrating, by means of drawings on the blackboard, the manner in which the irrigating fluid failed to reach the superior portion of the nasal cavity. In both of these cases, perforations of the membranæ tympana had occurred; one of the patients being seriously ill for a period of four weeks from an inflammation of the mucous membrane of the mastoid cells.

In 1869, I treated two cases whose ears were injured by its use. One had serious inflammation of the left mastoid process, it being greatly swollen and required a free incision to afford relief.

In 1870, I had five cases who were injured by this apparatus. I took pains to inquire whether or not they had informed the physician recommending the douche, of the bad effects of the treatment, and learned that they had not done so.

In 1871, I had only one case injured by it. He had been using the apparatus about four years, and had *noticed that whenever he had a cold in his head, he*

experienced the sensation as of water passing into both ears. He informed me that several of his acquaintances were affected in the same way ; " but," he said, " each of us had earache when we were young, and I thought that the earache had made our ears weak."

In 1872, I treated four cases injured by the same means. Three of these had but a slight affection of the ears ; two of the three had otorrhœa when young, the third one had no affection of the ear except that occasioned by the use of the douche. The fourth case was affected in the left antrum of Highmore ; I had a molar tooth, which was partially decayed, extracted to afford an opportunity to treat the cavity.

In 1873, I had two cases, both of whom had otitis media, but neither very severe. No history of otorrhœa previously, but both had defective hearing before using the douche.

In 1874, I had six cases of otitis media from effects of using the douche, and two cases in which the antra were injured by this apparatus. All the cases were mild.

In 1875, I had three cases from the same cause. One of these cases was a severe one, and had previously an affection of the ear. The hearing in each of these cases was quite defective.

In 1876, I had seven cases of otitis media, and one of inflammation of the antrum of Highmore, and one of inflammation of the frontal sinus. The hearing in the seven cases was defective before using the douche, *but much more so* after its use had caused inflammation

of the middle ear. In two instances I perforated the membrana tympani ; in one case the perforation closed in four days, in the other in about three months. In the case of the inflamed antrum, I had a second molar extracted to allow the escape of the pus. The case with inflamed frontal sinus was very severe, the lower portion of the forehead being greatly swollen and very red, the pain was so intense as to prevent sleep for three days.

During each succeeding year I have treated patients who were injured by the use of the Weber Douche. In 1877, I treated twenty cases. In 1878, thirty-two. In 1879, eighteen. In 1880, twenty-one. In 1881, forty-seven.

Connected with the history of nearly every one of my patients, I have noticed this fact, namely: that their ears and antra were in a more or less inflamed condition before the applications were made, which to a degree, lessens the censure that might be attached to this method of cleansing the nasal passages. In all cases where there were evidences of a diseased condition of the ear, except in those who suffered from perforation of the membrana tympani, if they desisted from the act of deglutition, thus preventing the entrance of water into the middle ear, the employment of this douche, as a cleansing agent, did not produce acute inflammation. The ears of those patients whose membranæ tympani were perforated, were unaffected by the use of the douche, even if the act of swallowing was performed while the water was in the

pharyngo-nasal cavity. I think it barely possible for water to enter a middle ear if its membrana tympani is perforated. I have also noticed that those patients whose ears had not manifested any symptoms of a diseased condition previous to the use of the douche, did not mention any bad effects, even when the water had entered their ears. My observations have taught me to expect that all patients, whose ears were affected by an acute inflammation at the time of using the douche (except in those cases whose tympana were perforated), would aggravate all the acute symptoms suddenly, if they performed the act of deglutition, while the water was being forced into the nasal passages so rapidly that it would flow upon the upper surface of the velum palati.

Even were it not possible to select those patients who should not use this method of cleansing the nasal passages, I would not consider this a sufficient reason to condemn it, provided it had a salutary effect on all those patients whose ears and antra were uninjured by it; but since it proves a serious injury to some patients, and signally fails in every case to reach the locality in which the disease originates, thus returning no compensation for the injury done to un-inflamed mucous membrane by its absorption of water, then, surely its use should be discontinued.

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## CHAPTER XXII.

### THE CURABILITY OF CHRONIC NASAL CATARRH.\*

Can Chronic Nasal Catarrh be cured? Yes, almost every uncomplicated case, under thirty-five or forty years of age, will ultimately recover if the patient and the physician will do their duty. This question is often asked by patients. The reason for the doubt in its curability, is that many of them have tried various patent "sure cures," advertised in the *religious* as well as the secular newspapers, and have taken numerous prescriptions from advertising physician and are still uncured. As might be expected, positive injury is the result of this course to the majority, while a few of the more fortunate ones experienced relief for a short time only. Besides these discouraging results, they have heard of others who have had the same experience, all of which drives them to the supposition that the disease is well-nigh incurable.

There is another and a very large class of patients who have received proper treatment, and who commenced but do not continue to take proper care to avoid renewing the originating cause of the disease.

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\* Knowing that I will repeat much that has already been given, I will treat the subject as thoroughly as though I had not said anything in reference to it.

If asked by their friends concerning their catarrhal condition, they reply that they were conscious of marked improvement at the early part of the treatment, but after a few weeks, while not as ill as at the commencement of the treatment, the improvement did not continue, and for this reason they discontinued to receive treatment. Such patients after a few weeks, will relapsed to their former state of ill-health.

They either purposely or unconsciously conceal the truth to avoid a merited censure of their conduct and make it appear that it was the physician's fault alone, that improvement did not continue to complete recovery. The relapse to their former state of ill-health is but a consequence of the relapse to their former mode of life.

It is evident that if a case of this kind had not continued to contract the disease, and the physician had continued to give appropriate treatment, the patient would have continued to improve until complete recovery had taken place; for if he improved when his health was seriously impaired by the disease, it seems natural to suppose that after his system had markedly recovered from the debilitating influence of the catarrh, he would have continued to improve if the same hygienic and therapeutic measures had been continued.

But these patients fail to fully appreciate the importance of hygienic measures, and only observe *them while* under the debilitating influence of *disease*.

It is seen that patients, like a great many physicians, expect that this disease is to be cured by medicines, alone; the sufferers' custom, habits and dress are not enquired into, local symptoms alone absorb the attention.

There are three very good reasons why very many patients are not cured. In the *first* place, they are unconscious of living in constant violation of the laws of health. *Second*, they do not have the least conception that their disease is solely the result of these violations. *Third*, they do not know that they are so seriously or rather so permanently affected, consequently they expect to be cured quickly, and not being cured quickly engenders a fear that they will not be cured at all. Not only will they be dissatisfied if they are not completely cured at the farthest in a few weeks or maybe months, but this result must be effected without any trouble on their part, as well as without interfering in the least with their usual course of life, especially if this course of life has been for years in gross violation of the laws of health.

Whenever a patient asks questions concerning the curability of this disease, the answer must be varied according to his age and temperament, but as a general rule, if a patient, under thirty-five or forty years of age will take proper care of himself, and receive a perfectly non-irritating local treatment, and suitable constitutional treatment, **HE WILL RECOVER FROM EVERY ONE OF HIS VIOLENT SYMPTOMS.** He will notice

## 242 FALL AND SPRING TREATMENT REQUIRED.

a cessation of these symptoms immediately after he commences treatment; a great majority notice it on the FIRST DAY. All of these violent symptoms should disappear in a few weeks or months at the most, but he must not think that he is so completely cured, that he can again commence a vigorous assault on the laws of health, unless he is regardless of a fresh accession of the disease.

If he continues to observe the laws of health and receive a few local treatments fall and spring—if he notices even a slight return of his old symptoms—he will in a few years lose all tendency to a recurrence of his disease. He may, once in a while, take a little cold in the head, but his liability to take these colds will be very greatly reduced, nor will they be nearly so severe or last so long as formerly, and should he receive one or, at most, three local treatments, every vestige will quickly disappear, not to return unless he is unduly exposed.

During this time and after this time, his life will not be disturbed with any of his former painful symptoms, in other words he will be in a healthy condition, A GRAND RESULT INDEED.

Being in health, if he lives in obedience to the laws of hygiene, of which he should not be ignorant, he will remain healthy. His health will be the great reward of his small service to the goddess *HYGEIA*; *a goddess who never allows her devotees to go unrewarded.*

Those who are older, will also be relieved of their prominent symptoms, as stated elsewhere, but will require more frequent fall and spring treatments.

NO DISEASE MORE AMENABLE TO HYGIENIC AND THERAPEUTIC MANAGEMENT.

I know of no disease that so quickly yields to proper treatment than chronic catarrhal inflammation of the nasal cavities. It is really remarkable how quickly the healing powers of nature commences to restore the diseased parts to their healthy condition when it has an opportunity. If the right kind of local applications are made, the right kind of internal remedies are given and the patient takes the proper care of himself, reparation commences at once.

Some physicians practice as though they thought that the medicine alone was able to cure a case, consequently pay no attention to hygiene. In this they resemble the "sure-cure" men; both recommend their medicine as curing, neither give the least thought to the care that the patient should take of himself. Medicine no doubt, performs a very important rôle in the matter of curing, one that cannot be taken by anything else, and, in my judgement, it might be said to do about ONE FOURTH of the work. It is difficult to make an estimate of the proportionate value of the various means that take part in the recovery of a case, but the credit I have given to medicine is all that is due to it. It follows that the physician who pretends to cure this disease without depend-

ing upon the successful attention to the laws of hygiene, will be as unsuccessful as the patent- "sure-cure" man. In fact, the patent "sure cure" man has filched the formulas of his compounds from just such medical men as I am now alluding to, and these patent compounds are no more nor no less efficacious than many of the medicines employed by physicians of high standing.\*

It will be well to give the proportionate value of the other means that take part in the improvement and cure of a case. I think the CARE taken by the patient, that is, such care as will be successful in preventing the recurrence of the causes of the disease, namely warding off colds, abstaining from the use of tobacco and stimulants etc., should receive NEARLY ONE HALF of the credit of the cure.

These two potencies, medicine and hygiene, would be unsuccessful without the assistance of another, namely, the healing tendency of nature. Suppose the medicines were given and applied to a dead body, and all the care bestowed upon it that should be bestowed upon a living one, would it not amount to a farce?

It is seen that there are three conditions essential to a cure of this disease. viz:

- (a) The patient's successful efforts in preventing the recurrence of the causes of the disease.
- (b) Perfectly non-irritating methods of applying

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\* *It is a notorious fact that many physicians are now using some of the most popular "sure-cures."*



perfectly non-irritating remedies, and the use of appropriate internal medicines.

(c) The healing tendency of nature.

The more vigorous this tendency of nature, the less seriously will the patient be affected by colds, and the more quickly will a cure be performed. This healing force or potency is found to be strongest in the infant and gradually to decrease as advanced age is reached. It is stronger in those who have dark hair and weaker in those who have light hair. Persons who have dark hair have relatively a stronger skin and mucous membrane and those who have light hair, a weaker skin and mucous membrane.

The secret of the cure of chronic nasal catarrh is this: the patient and the physician has only to prevent the operation of harmful processes that are causing and maintaining the disease, and at once the healing operations of nature commence the process of repair. In the young, the amount of impairment of the mucous membrane is so small and the healing tendency so great, a cure is quickly and easily effected, while with those who have arrived at more mature years, the injury done to the mucous membrane by diseased action is greater, and the healing tendency of nature relatively weaker, therefore more time for repair and more work by the physician is required before the process of repair is completed.

It is seen, that, according to my judgement, the

patient has the most to do, and the physician the least to do, while a cure is being effected.

WILL THE CATARRH RETURN AGAIN?

This question is a very proper one, and is nearly always asked by my patients. A fretful doctor might answer it by asking the following questions: "If you get cured of a burn, can you not burn yourself again? If you get cured of a cold, can you not again expose yourself and take another cold?"

While these answers are in every respect an answer to the question asked, yet they might deter the patient from asking other questions, the answers of which would teach him how to prevent the return of the catarrh, a matter of very great importance to him.

Here are my answers: 1st. Yes, the catarrh will return again if he does not take every precaution to prevent taking cold; in other words, if he does not discontinue the habits that contracted the disease. Not only it is altogether likely that if he has had only a few weeks treatment he will take cold at the next change of the season, as his mucous membrane has not had time to recover its normal resisting power, consequently he will require a few treatments—about 10 *per cent.* of his first long course—to again relieve him of the new inflammatory process that has just began. If these treatments are not given, the disease will again commence to increase in severity, and will, in a few years, assume as grave a

phase as at the commencement of the first treatments.

2nd. answer: No, the catarrh will not return, again if he lives consistent with the laws of hygiene. No person after once undergoing a treatment for chronic catarrhal inflammation of the nasal passages, should ever have symptoms as severe as he had previous to being treated. If he does, it is his own fault, and he knows it, and does not care to change his course of life to prevent it.

It is certainly a very proper, as well as a very reasonable request to ask of patients, that they will as strictly observe the necessary conditions of health in this disease, as they would if suffering from any other complaint; namely that they use their utmost endeavors to prevent the renewal of the causes of the disease.

Is this possible? Yes always possible.

It is not because of inability of patients to conform to conditions that will assist in bringing about a recovery, but to their complete ignorance of the fact that by their own acts, they have brought on, and are maintaining this disease. This accounts for patients making no effort to prevent the renewal of the causes of the complaint.

Let us commence with the youngest sufferer. Is a mother unable to properly protect her babe when she takes it for healthful out-door walk? No! Is she unable to make a cap to protect its tender, hairless head from being injured by even an indoor tempera-

ture that is twenty to thirty degrees colder than its blood? No! Then why does she not prevent it from becoming affected with snuffles—another name for a very profuse acute catarrh—a symptom that is positive proof that it is suffering severely from an attack of cold in its nasal passages, the result of insufficient protection of its head.

The only answer that can be given to these questions, is that she is unconscious of any omission in the care of her child, and has not the least conception that the slightest harm will result because its head is uncovered. She does not know that the snuffles—to her a very trifling matter (?) because it is so exceedingly common—is the result of a cold. She has not been informed that a cold thus taken, prepares her child's mucous membrane to take another cold more easily on the next exposure, and that repetitions of exposure and consequent cold are positively certain to end in serious disease of the nasal passages, throat, ears or lungs or several of these organs at the same time.

If a child thus exposed, survives and attains the age of ten years (it has only one chance in three of doing so, because of the effect of colds) its nasal passages, Eustachian tubes, throat and may be its lungs will be so weakened by catarrhal inflammation, that it will be liable to suffer attacks of headache, or be affected with enlarged tonsils, deafness, weak eyes, asthma, pruritic catarrh (hay-fever), etc. and

the disease may be so severe as to interfere with its growth, if it does not cause it to fill an untimely grave.

Who would say that such a child would have taken a cold if its head had been properly protected? Who would say that its cold would not at once disappear if its mother would take as much care to protect its head as she does the rest of its body?

Every child that is ten years old, and is in the "habit" of taking cold, has had the mucous membrane or the nasal passages inflamed when an infant, the result of undue exposure and is still suffering from insufficient protection of a part or the whole of its body.

Few persons of observation, will say that these colds could not be very materially lessened by a proper attention to clothing alone. If there are some who do not agree to this, will they deny that removal of clothing from a catarrhal child would not at once aggravate all its catarrhal troubles? \*

I have yet to see intelligent parents, especially those who have raised large families, that did not agree with me in this regard, as soon as the subject was shown in all its bearings.

What can be said of a mother's judgment, and her knowledge of the laws of health, when she dresses her seventeen year old daughter—an age when she

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\* This kind of argument sometimes suits stubborn people. It drives them farther toward their own absurd extremes.

is very liable to functional interruptions of a very serious nature—in garments that weighs but a little over half of what her fifteen year old son's clothes weigh. In common matters of every day life, there is no greater demonstration of woeful ignorance—almost criminal—than is here displayed. The son, although not so mature, demands almost twice the weight of clothing; he is stronger than she is, and can resist the effect of an inclement temperature much better than she can, but he would be sick and in bed in two weeks were he compelled to wear her scanty, unprotecting garments.

I believe the reason that he is stronger than she is, is because he is dressed so warmly that his system is not debilitated in resisting the effect of colds. Who would say that conformity of the laws of health in regard to clothing, would not be as beneficial to this young woman's strength of body, as it to her brother's?

The method of clothing adopted by almost every woman up to the age of 25 or 30 years—the commencement of woman's age of reason—maintains their nasal catarrhal inflammation. Every thinly clad female that has shivers coursing up and down her back, is, without exception a victim of nasal catarrh.

I know in saying this, I leave a very small number who have healthy respiratory organs.

To conclude; the healing tendency of nature is *so* strong in sufferers under five years of age, that

they will recover upon the observance of the laws of health alone, while with those who are older, but still "able to be about" and to attend to ordinary business, hygienic measures, combined with local and constitutional treatment will result in recovery.

Every sufferer in whom the observance of the laws of health has the effect of producing even a slight improvement, the additional aid from a physician will result in his betterment and final recovery.

Those who have been so far brought under the influence of the disease, that a discontinuance of the originating causes do not bring any improvement, local applications of the right kind, will *always give relief*, but whether it will lead to ultimate recovery can be found by trial alone. As a general thing, the sufferings of such cases are relieved only; medicine in any form, does but arrest their downward course to the grave.

—\*\*\*FINIS\*\*\*—





## GLOSSARY.

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**Antrum of Highmore.**—A large cavity in the cheek, under the eye; its opening is into the nose. The roots of the upper molar teeth are very near the floor of this cavity.

**Azygos Prominence.**—A ridge running up the center of the back or posterior portion of the soft palate, seen in Fig. 2, page 139, *Az. Pr.* An organ required in singing, elocution and mimicking.

**Choanæ.**—Found on page 219; the openings from the posterior nares into the pharyngo-nasal cavity.

**Epiglottis.**—A cartilagenous organ located at the root of the tongue. During respiration it is upright or nearly so. During deglutition, the larynx is brought up so high that the epiglottis is made to cover the opening into the lungs, which is called the glottis. It is seen in Figs. 1, 2, 4 and 5, *Ep.* pages 138, 139, 141 and 143.

**Ethmoidal Cells.**—Two cavities on each side of the nose. They are under the superior and middle turbinated processes, marked *c* and *d*, Fig. 7, page 222. Their openings are under these two processes.

**Eustachian Tube.**—The canal connecting the pharyngo-nasal cavity with the middle ear. The mouth

of the tube is seen in Figs. 1, 4 and 5, pages 138, 141 and 143.

**Fauces.**—The back portion of the mouth; seen when the mouth is wide open, and the tongue depressed. By referring to Fig. 3, page 140, it will be seen that the reflector, *R.* is in the fauces.

**Frontal Sinuses.**—These are cavities over the eyes. They form the eye brows, and connect with the nose by a canal that opens under the middle turbinated process. In Fig. 1. page 138, it is seen just over the highest part of the nasal cavity, in front.

**Hard Palate.**—The roof of the mouth. By placing the finger on the roof of the mouth, the hard portion felt is the hard palate, while farther back it will be found to be soft, this is the soft palate. The hard palate is seen in Figs. 4 and 5, pages 141 and 143.

**Mucous Membrane.**—The lining membrane of the mouth, nostrils, ears, lungs, stomach and all air passages and digestive canal, etc., of the body.

**Naso-pharyngitis.**—Inflammation of the mucous membrane lining the naso-pharynx, or pharyngo-nasal cavity.

**Subjective Symptoms.**—Sensations experienced by the patient; as he is subject to sensations, these sensations are his subjective symptoms.

**Pharyngo-nasal Cavity, sometimes called the Naso-pharynx.**—The cavity behind the soft palate, and the back portion of the nose; the nostrils open into it. By reference to Fig. 1. page 138, it will be seen that the reflector *R.* and the mouth of the Eustachian tube is in this cavity. The dotted line is its anterior boundary; the joint of the reflector is touching its upper boundary, and the uvula, *U.* is at the lower boundary.

**phenoidal Cells.**—A large cavity under the base of the brain connected with the upper and back part

of each nasal passage. It is seen divided into two parts in Fig. 1. page 138, over *Et.* and in Fig. 7. page 222, over *d.* Its opening into the nasal passages is under the superior turbinated process *c.* Fig. 7.

**Objective Symptoms.**—Signs or objects seen by any one making an examination; for instance, yellow matter seen in the throat, etc., is an objective symptom of catarrhal disease of the pharyngo-nasal and nasal cavities.

**Turbinated Processes.**—Three convolutions of bone and mucous membrane on the outside of each nasal passage. The swelling of these projections causes stoppage of the breath through the nostrils. Seen in Fig. 7. page 222, *a, b, c*; also in Fig. 1. page 138, —they are not lettered in this illustration.

**The Soft Palate.**—The hanging portion of the palate seen in the upper and back portion of the mouth. The uvula is a small organ attached to it, and is seen hanging down from the middle of the soft palate; erroneously called the palate. *S. P.* Fig. 1. page 138, represents the soft palate divided antero-posteriorly through the middle; also seen in Figs. 4 and 5, pages 141 and 143.

**The Uvula.**—A small organ attached to the lower edge of the soft palate. Erroneously called the palate. By referring to Fig. 1 page 138, this organ can be seen hanging in its natural position from the soft palate, *S. P.*; also seen at *U.* Fig. 2. page 139, resting on the base of the tongue, *T.* In Fig. 3. page 140, it is seen hanging from the soft palate, above the reflector, *R.* as well as seen by reflection in the mirror itself; also in Fig. 4. page 141, doubled up and resting on the tongue, its natural position when the mouth is not open.

**Vocal Cords.**—Horizontal bands in the larynx, that, when thrown into vibration by the air from the lungs, produce sound. Their healthy color is the same as the white of the eye. Seen, imperfectly, below the letters *Ep.* in Fig. 1. page 138.



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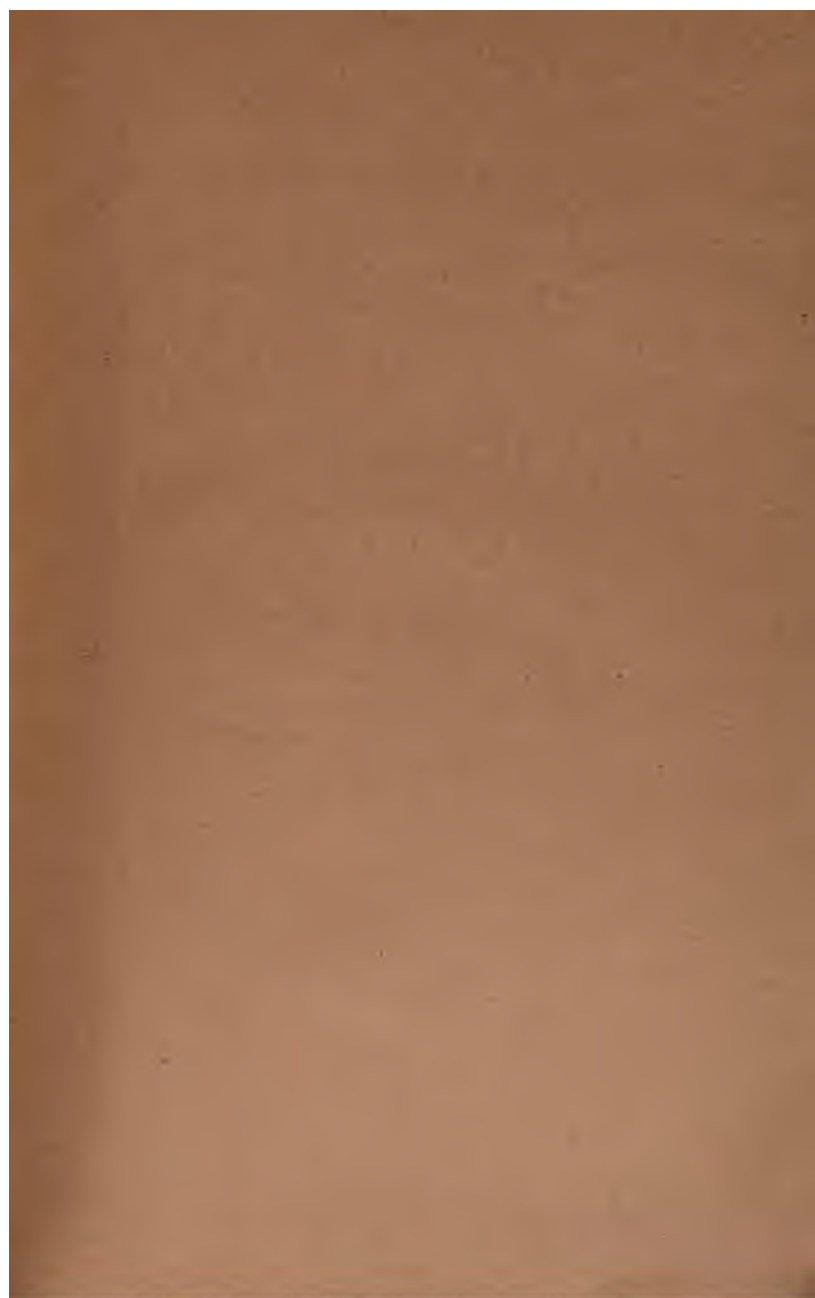
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